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NUMBER 1

BASIC PHYSIOLOGIC STUDIES ON NORMAL CHILDREN UNDER MILD CHLORPROMAZINE SEDATION* †

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INTRODUCTION

Chlorpromazine has been used in this country over the past three years for a vast number of human ills, both mental and physical, alone and in combination with other medication. There is, however, a paucity of investigational work on normal subjects, and particularly with the use of the compound in low dosage. For this reason fifteen normal children were chosen as subjects, and the dosage was kept well below the minimum required for detectable clinical effect.

The role of chlorpromazine as a tranquilizing agent is well established both clinically and experimentally. The potency of the compound in effecting an inhibition of the arousal reaction has been localized to a specific action on the mesodiencephalic activating system (1, 2) which combines the brain stem reticular formation with the diffuse cortical projection system of the thalamus. Since a subjective manifestation of this reaction is anxiety, a control of the anxiety component in the subjects, as well as quantitative evaluation of physiologic phenomena involved, is the dual purpose of this investigation.

METHODS

The subjects were chosen at random from patients coming in to the pedodontics clinic. A varying degree of apprehension is apparent in subjects of this age range, four to eleven, during dental office visits. Except for the anxiety, these children were healthy normal individuals. Each subject became his or her own control, since all of the physiologic determinations were carried out before sedation with chlorpromazine, as well as after, using identical techniques. The drug was given orally, using 10 mgm.

* Presented before the Federation of American Societies for Experimental Biology, Physiology Session, 76th meeting, Atlantic City, April 16-20, 1956.

† From the Departments of Physiology and Pedodontics, University of Maryland, School of Dentistry, Baltimore, Maryland.

tablets of chlorpromazine.* Mild sedation was achieved by giving one or two tablets, depending on age and size, the evening before the clinic visit, and another dose an hour before testing and examining. This procedure was followed for all determinations except the electroencephalograms. In this test, a tracing was made on the non-sedated subject, then chlorpromazine was administered, and a second tracing was taken in 30 to 50 minutes time.

The subjects were skin-tested prior to the first dose (3), to eliminate possibility of sensitization reactions. The physiologic measurements determined included cold pressor response (4), respiratory volumes and electroencephalograms.

The cold pressor test constitutes an excellent "arousal" stimulus by virtue of the pain reaction. The procedure entails immersion of one hand in ice water for one minute, with blood pressure measured preceding, during, and following the immersion period until the systolic pressure returns to or below the normal level. The promptness of the systolic rise, as well as the degree of the increase indicates the response of the organism to noxious stimuli.

The respiratory volumes were measured on a closed circuit system with CO₂ absorption, using a human spirometer which recorded for a period of three to six minutes. The minute-volume was calculated for each subject, using the values from the previously calibrated instrument.

Electroencephalographic recordings were made on a Grass machine, using eight electrode placements in both mono and bi-polar combinations. The subjects rested in a supine position with eyes closed. Tracings were made during the rest condition and during hyperventilation and post-hyperventilation states. These tracings were then analyzed for alpha, theta and beta per cent time occurrence. The alpha waves were counted in records from the occipital region, theta from the parietal region, and beta waves from frontal, parietal, and occipital area tracings.

RESULTS

Behavioral sedation achieved by this low dosage was not marked. With the exception of some tranquillization of the three youngest and most restless subjects, little difference was observed in the childrens' reaction to clinical examination. In the physiologic determinations, however, all showed a demonstrable effect. A retarded cold pressor response, a decrease in respiratory minute volume, and a significant drop in the occurrence of low voltage 18-22 cycles per second activity of the prefrontal electroencephalogram were the changes shown in the total data.

The average values on the cold pressor test (fig. 1) showed a retarded response of thirty to sixty seconds duration. The peak of the systolic rise, which occurs normally during the first half of the immersion period, attains the same value in both pre- and post-medicated subjects, but in the latter, occurs thirty seconds *after* the immersion period, a marked retardation of the "arousal" response.

The change in minute respiratory volumes (fig. 2) is shown in the order of greater difference between the normal, and the sedated values of the total group. Eleven of the subjects showed a marked drop in respiratory volume, three showed little change, and one demonstrated a slight rise. The average difference is a demonstrable decrease.

* Thorazine, kindly supplied by Smith, Kline and French Laboratories, Philadelphia, Pennsylvania.

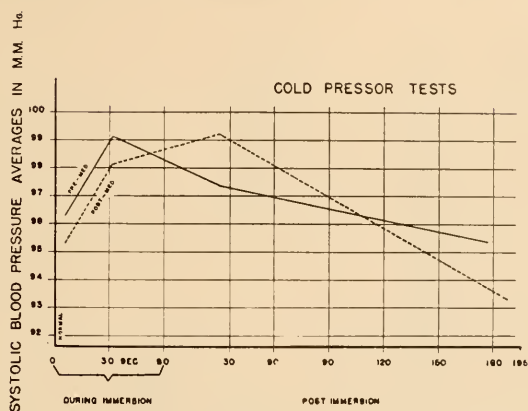


FIG. 1. The blood pressure response to the cold pressor test. A comparison of the normal (pre-med) with the post-medication values shows 30 second retardation in the treated subjects.

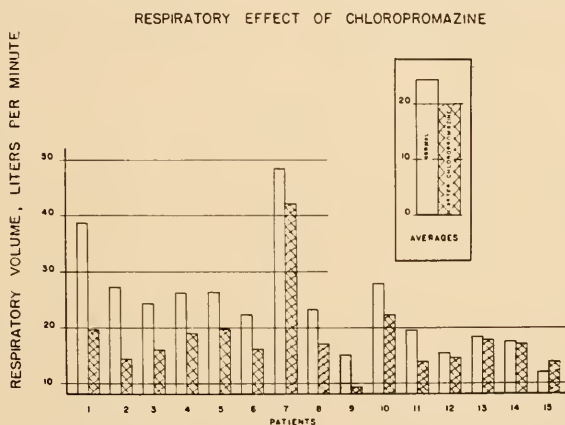


FIG. 2. The effect of sedation on the respiratory volumes, showing the comparison with normal (pre-treated) subjects, in the order of the greatest difference. The average values demonstrate a decrease.

This difference is a finding that is consistent with the inhibition of body temperature and general metabolism frequently seen in subjects under chlorpromazine sedation.

The per cent time occurrence of three frequencies of cerebral potentials were counted (fig. 3). The alpha waves, 8–11 cycles per second, were counted in the occipital areas; the theta waves, 4–6 cycles per second, were counted in the parietal; and the beta* (low voltage 18–22 cycles per second) were counted in occipital, parietal, and frontal areas. The similarity between values obtained on normal and on sedated subjects is clearly shown in the alpha and theta counts. The beta activity shows a slightly increased difference (a decrease) in the occipital and parietal areas, while in the frontal tracing, the count shows the greatest drop. The average of this difference was a 5 per cent time beta decrease. This would appear to be a minimal, though consistent, change. Upon subjection of these data, (Table 1, last two columns) to statistical evaluation, however, the change was significant. When standard deviations

* The term beta is usually applied only to low voltage fast activity of the frontal cortex, but for simplicity's sake this term is used here also to designate this type of activity in other cortical areas.

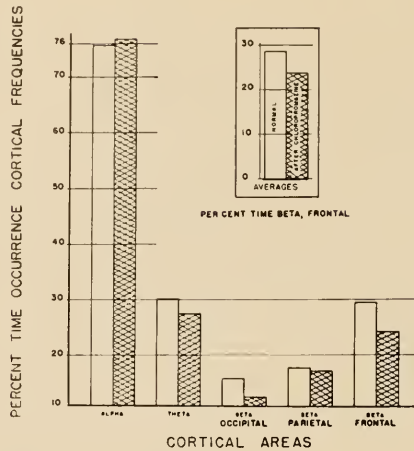


FIG. 3. The differences in the per cent time occurrence of cortical frequencies may be seen to be very slight, except in the beta (average, 20/sec.) activity of the frontal cortex. The observed differences of the average values of this area proved to be statistically significant.

TABLE 1
Per Cent Time Occurrence of Cortical Frequencies

Alpha	Occip.	Theta	Pariet.	Beta, 20/sec. av.					
				Occip.		Pariet.		Frontal	
N	P	N	P	N	P	N	P	N	P
70	62	—	—	24	23.5	18	17	27.5	17
82	89	26	32	7.5	8.5	16.5	12.5	22	20
84	81	30	56	10.5	8.5	14	14	26	19
85	92	20	13	9.5	8	16	20	27.5	19.5
83	88	39	34	12.5	8	15	5	21	21.5
94	92	17	8	7	7	11	9	21	26.5
84	84	30	40	13	14.5	21	12	21	22.5
57	48	62	37	25.5	18.5	27	26	47	41
57	84	27	30	17	18.5	17	20.5	55	34.5
51	35	30	17	5.5	0	17.5	14	37.5	27
92	76	14	14	8.5	6.5	10	11	22.5	17
77	80	47	40	3.5	4.5	7.5	5	13	15.5
77	84	44	55	23	12	15.5	27.5	22	20.5
60	86	8	15	40	14	26.5	29	34.5	23.5
70	58	31	27	16.5	20	26.5	21.5	34.5	31.5
Av. 74.8	75.9	29.3	27.8	13.8	11.6	17.3	16.2	28.8	23.8

The normal (N) values compared to the post-medication (P) values show little change except in the beta activity of the frontal cortex. The observed difference in these average figures, when compared to the S.E. of the difference, indicates positive significance.

are calculated and the observed difference is compared to the standard error (S.E.) of the difference, a 2.89 value is obtained. Since the ratio between observed difference and S.E. of the difference exceeds the value of 2, there is positive indication of a significant difference in the beta per cent time occurrence in frontal cortical areas (5).

DISCUSSION

The effect of chlorpromazine in retarding cold pressor response and decreasing respiratory minute volumes merits little further discussion, since the changes were minimal. When the cold pressor response is considered as an arousal stimulus, the inhibition of that reaction produced by the chlorpromazine in these subjects is compatible with data reported on rabbits (6) in which the arousal reaction produced by stimulation of the hypothalamus was blocked by chlorpromazine.

The significant decrease in per cent time occurrence of the low voltage fast activity in the prefrontal areas is in agreement with many reports of the successful use of chlorpromazine in alleviation of anxiety. With reference to the positive correlation that has been indicated between low voltage fast activity and anxiety, (7) these results tend to strengthen the concept. Dosage in this same range of magnitude in cats (1) also produced a slowing of cortical fast low voltage activity.

Specificity in the central nervous processes effecting this cortical inhibition has been indicated by Rinaldi and Himwich, (8) and further clarified by Grenell et al. (9). The former found in rabbits an inhibition of the alerting response (electrographic reaction characterized by low voltage fast activity), detectable with the dosage between 0.5 and 1.5 mgm/kg. This was a drug level in the same range of magnitude as was used with the subjects in this investigation (with a larger dosage, 15–20 mgm/kg., excitation of MDAS was seen on EEG). Grenell, et al., found under chlorpromazine that the greatest accumulation of ATP in rat brains was in the midbrain area, with some accumulation in cerebellum, cerebral cortex, and medulla. These findings are interesting in view of Abood's (10) data; he detected an inhibition of oxidative phosphorylation in the basal ganglia in chlorpromazine-poisoned rats, and demonstrated that the compound uncoupled phosphorylation of brain mitochondria of these animals.

More recent investigators show confirmatory results: Demaar and Martin (11) found a decrease in low amplitude fast activity in cats on 1 to 10 mgm/kg. dosage in 90 per cent of the animals. Preston (12) found an inhibition in the cortical arousal pattern in chlorpromazine-treated cats, following stimulation of the medial reticular formation, and under high dosage, seizure activity in the amygdaloid nuclear complex. This amygdaloid sensitivity is interesting in view of Fox's description of the connections from the amygdaloid nucleus to the thalamus, in the macaca (13), and Gloor's stimulation of cat amygdaloid nucleus from which evoked potentials indicated a direct amygdalomesencephalic connection, comprising a subcortical projection field of the amygdala extending to the tegmentum mesencephali which includes, among other structures, "the hypothalamus, sub-thalamus, the entopeduncular nucleus, and some nuclei of the diffuse projection system (14)."

There is no longer a complete mystery concerning the central action of chlorpromazine, but an explanation of the highly complex nature of the interaction on a cellular level still needs clarification.

SUMMARY

Fifteen normal children were mildly sedated by chlorpromazine in low dosage to determine:

1. If manifestations of anxiety under clinical dental examination could be alleviated.

2. If basic physiologic measurements on blood pressure, respiration and electroencephalograms would show appreciable difference in the pre and post medication tests on these subjects.

No appreciable difference in the anxiety level was noted following medication. The systolic blood pressure increase that normally follows the arousal stimulus of the cold pressor test was retarded by 30 to 60 seconds in the post medication studies.

The respiratory minute volumes decreased appreciably in 11 of the 15 subjects after chlorpromazine.

The per cent time occurrence of cortical potentials was counted in three frequencies: alpha, theta and beta. No appreciable difference was found in the alpha and theta frequencies and very little difference in the beta frequency that was counted in the occipital and parietal areas. In the frontal cortex, however, a statistically significant decrease in the 18-22 cycles per second activity was found in the post medication tracings.

The significance of these results is discussed.

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A METHOD FOR CONTINUOUS SAMPLING OF THE PORTAL VENOUS BLOOD* †

R ADAMS COWLEY, M.D. AND SANTIAGO LOMBANA, M.D.

To obtain samples of portal venous blood for various metabolic studies, it is necessary to limit the studies to single, acute experiments or to perform multiple

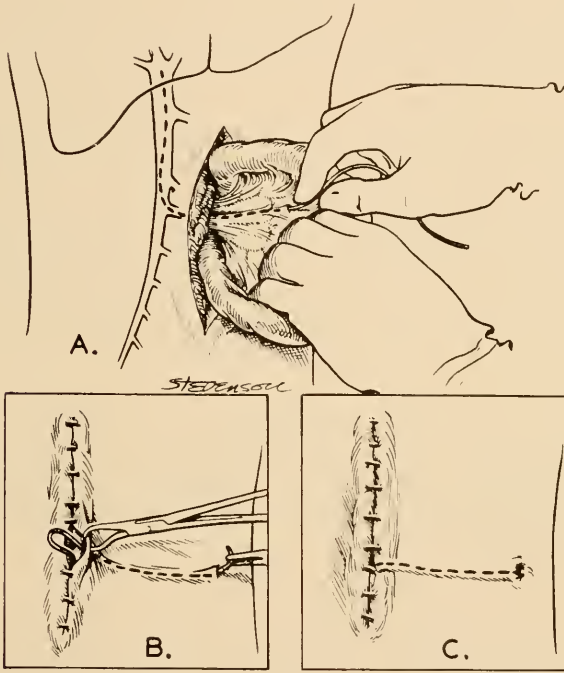


FIG. 1. A. Threading the polyethylene tube through a mesenteric vein into the portal vein. B. The tube is filled with heparin and the tip sealed with heat. Four to six inches of the tube is laid in a subcutaneous tunnel. C. After healing, a small skin incision exposes the tube. For multiple sampling, the first skin incision should be placed near the end of the tunnel. As the tube is cut and resealed, the skin incisions are made more proximal to expose the tube.

operations whenever samples are needed. Thus, it is not technically feasible to make continuous studies of liver metabolism in the physiologically intact animal.

In order to obviate these difficulties, we have investigated the feasibility of implanting a polyethylene catheter into the portal vein via a subcutaneous tunnel.

Such catheter implants have been accomplished successfully in 20 out of 21 dogs, and have been used for taking blood samples over periods up to 41 days. The unsuccessful first attempt was in an animal not treated in the immediate post-operative period with an antibiotic; it suffered massive necrosis of the small bowel because of

* From the Department of Surgery, School of Medicine, University of Maryland.

† Supported by United States Army Medical Service Contract No. 49-007-MD-674.

a propagating thrombus in the portal vein and its branches. All of the 21 dogs were autopsied and, except for the one that died, there was no evidence of liver damage either from thrombus formation or embolism. Clots will form in a catheter occasionally, but they can be removed easily and innocuously by slowly irrigating the tube with 10 cc. of saline containing 25,000 units of varidase.

PROCEDURE

A small laparotomy incision is made (fig. 1), and a No. 18 polyethylene tube is threaded through a mesenteric vein into the portal vein. Its position in relation to the liver is carefully checked, and the catheter is then fixed to the mesentery with a small silk ligature. The free end of the catheter is filled with heparin solution and the end sealed with heat. About 4 inches of the catheter is brought up subcutaneously through a stab wound so as to lie in a tunnel under the skin. All dogs receive a broad spectrum antibiotic for three days to prevent infection around the catheter.

The polyethylene tube can now be used for sampling by making a small skin incision over the tunnel, picking up the catheter tip, cutting off the sealed end and inserting proper size needle. After sampling, the tube is flushed with saline and heparin, the needle is removed, the tube heat sealed and the skin incision closed. With aseptic technique, this procedure can be used for several days and, if continuous sampling is necessary, the tube is kept open with a slow drip of saline.

SUMMARY

A technique for multiple portal vein sampling without the necessity for acute experimentation or multiple operations is described. The same technique can also be used for taking multiple blood samples from any large vessel, such as the hepatic, splenic or pulmonary vein.

THE TREATMENT OF DEPRESSION AND DEBILITATION WITH MARSILID® *

FRANK J. AYD, JR., M.D.

Recently Marsilid® (Iproniazid) (1-isonicotinyl-2-isopropyl hydrazine) has been heralded as a new "psychic energizer" which elevates mood, stimulates appetite, increases weight, and restores vitality. Because of these effects Marsilid is recommended for use by the general practitioner for treating mild depressions in ambulatory non-psychotic patients and for stimulating appetite and promoting weight gain in debilitated patients. It is also suggested for hospitalized psychotic patients with severe depression or regression.

Since depressions and debilitation are often encountered by the general practitioner and the psychiatrist, a compound with such therapeutic potentials for these conditions would be welcomed if clinical experience demonstrates the drug's effectiveness and freedom from troublesome or potentially serious side effects. To determine if Marsilid fulfills these criteria the results of a pilot study of this drug in ambulatory patients are reviewed in this report.

CLINICAL MATERIAL

Marsilid was prescribed for 35 men and 65 women (ages 22-70) diagnostically categorized: psychoneurosis—depressed 16, hypochondriac reaction 2, asthenic reaction 5, manic-depressive—depressed 44, involutional depression 20, and schizophrenic reaction 13. Their essential complaints were weakness, lack of energy, easy fatigability, loss of interest, feelings of dejection, insomnia, anorexia, and weight loss.

TECHNIQUE OF TREATMENT

Marsilid was administered without comment as to what it was or the expected clinical response. Twenty patients were given the drug in addition to other medication, 15 were started on an inert placebo followed by Marsilid, 48 received Marsilid alone, 17 took Marsilid plus 5 mg. d-amphetamine once or twice a day.

The most severely depressed and debilitated patients were given Marsilid 50 mg. two or three times daily. The mild and moderately ill patients were given 25 mg. three or four times a day. Very thin individuals initially received 10 mg. three times daily. The initial dose was continued until improvement occurred or toxic side effects intervened. Then the dosage was reduced gradually or discontinued if toxic side effects persisted. Except for those intolerant of Marsilid or those who refused to take it because of side effects, all patients received the drug for three to six months.

THERAPEUTIC RESULTS

Because Marsilid is a slow-acting drug, therapeutic response did not occur before the third week of treatment. However, side effects were noted shortly after treatment began. Because of side reactions, 22 patients were unable to take Marsilid and had to be dropped from the investigation.

* Marsilid® supplied through the courtesy of Hoffman-La Roche Inc., Nutley 10, N. J.

The therapeutic results obtained in the 78 patients who took Marsilid for three to six months were assayed by the following criteria:

(1) Improvement: almost complete symptomatic remission from depression and/or debilitation and (2) Partial Improvement: sufficient symptomatic relief to permit the patient to function more efficiently. By these standards 13 were improved, 39 were partially improved, and 26 were unimproved. If the unimproved patients are combined with the 22 dropped because of side effects then over half of those started on Marsilid did not benefit from this drug.

The symptomatic response was inconsistent and quite variable. No patient was completely rid of his symptoms while taking Marsilid. Patients who improved required treatment other than the drug, especially psychotherapy. For the patients improved and partially improved Marsilid was an aid to psychotherapy, although at times side effects hindered effective psychotherapy.

There was no apparent clinical difference between those who reacted well and those who were unresponsive or intolerant of Marsilid. Sex, age and duration or severity of illness did not play a role in the therapeutic results; nor was there a correlation between dosage and therapeutic results.

The combination of d-amphetamine and Marsilid was not significantly advantageous over Marsilid alone. Often Marsilid alone stimulated the patient so that day and night sedation or tranquilization was necessary. In addition, most patients needed vitamin B₆ to relieve some of the Marsilid induced side effects. The role of these additional medications in the therapeutic outcome was difficult to define.

SIDE EFFECTS

Every patient had side reactions to Marsilid; some were serious, others were not. In 22 patients the drug was stopped because of: anxiety over autonomic side effects, severe postural hypotension, paranoid reaction with excitement, hypomanic and manic psychoses, edema, annoying paresthesias, severe dyspnea, cardiac failure, and enhanced depression.

Marsilid frequently caused headaches, blurred vision, dryness of the mouth, bradycardia, hypotension, dizziness, delayed micturition, impotence, and constipation. Other side effects were neuralgic pains, hyperreflexia, clonus, weakness and fatigue, drowsiness, itching, sweating, diarrhea, and insomnia.

Several patients noted that alcohol had more effect than usual while they were taking the drug. One patient had a reduced red cell count and lowered hemoglobin. This hematologic reaction persisted for the five months the patient was on Marsilid. Another patient, a forest ranger, had a shock-like reaction to a wasp sting with prostration, dyspnea, and cyanosis for which emergency hospitalization was required. This man had been stung by wasps prior to and after Marsilid without any serious reaction.

Sudden discontinuation of Marsilid after two or more weeks of doses of 100 mg. daily may result in withdrawal symptoms. This happened to two patients who stopped treatment because of discouragement over the absence of a therapeutic response. Within 48 hours they were nervous, irritable, depressed, and complaining of dizziness, severe headaches, and disturbing dreams. One patient recovered in three days; in the other, two weeks passed before symptoms subsided.

Psychic reactions were common. They were contingent upon the patient's pre-treatment personality. Some patients were unduly enthusiastic about their response to the drug and were reluctant to stop taking it. Two patients surreptitiously procured it from other doctors when they were advised to stop it. It is possible that the euphoriant properties of Marsilid may be responsible for addiction to it. Other patients disliked the side effects of this compound and some relapsed when side reactions appeared. In most patients the psychic response to the drug uncovered more basic psychopathology than was evident when the patient's treatment began.

The psychotic reactions precipitated by Marsilid developed abruptly between the sixth and eighth weeks of treatment on doses between 50 and 125 mg. daily. They were preceded by a brief spell of restlessness, enhanced anxiety and insomnia. Psychomotor excitement, euphoria, and garrulousness were the characteristic symptoms of these psychoses. All but one patient had to be hospitalized for treatment with tranquilizing drugs and electroconvulsive therapy. It took from two to four months for the patients to recover from their Marsilid-induced psychosis.

There was no positive correlation between dosage and the occurrence of side reactions. Some patients tolerated well 150 mg. daily, while others had multiple and, at times, serious reactions on not more than 75 mg. a day. The longer a patient took the drug the more likely he was to have side effects, even when the dosage was reduced to as little as 30 mg. daily. Men had fewer side reactions than women and the older the patient the more sensitive he was to the drug.

COMMENT

Marsilid can be a potent stimulant which produces a sense of well being, increases energy, abolishes fatigue, lessens the need for sleep, affects sexual desire, makes a person loquacious, and may cause a psychosis. Thus, it has an amphetamine-like action with the exception that it stimulates rather than suppresses the appetite.

Marsilid is not always a psychic energizer. It may be a tranquilizer. It can cause weakness and fatigue, drowsiness and postural hypotension of such severity that the patient cannot rise from his bed. In this respect its effects resemble the action of tranquilizers like Thorazine.

Marsilid also may be a psychotomimetic drug, especially when prescribed for patients with a previous psychotic episode or a predisposition to a psychosis. For these reasons, Marsilid should be prescribed cautiously for ambulatory patients who can be carefully supervised.

Three pertinent observations were made in this survey. These were: (1) Patients who have side effects such as headaches, dizziness, diarrhea, parathesias, anorexia and weight loss shortly after Marsilid is started do not benefit from this drug. (2) Patients who have not responded to Marsilid within three months are not likely to improve with further therapy. (3) It is essential to know the patient's physical and mental condition and basic personality structure before prescribing Marsilid.

SUMMARY AND CONCLUSION

Marsilid was prescribed for 100 ambulatory depressed or debilitated patients in doses of 30 mg. to 150 mg. daily for three to six months. Of this group 22 had to discontinue therapy because of unpleasant side effects. Of the remaining 78 patients,

13 were improved, 39 were partially improved, 26 were unimproved. Between the unimproved and those dropped because of side effects, over half of those who began treatment with Marsilid did not benefit from the drug. The sedatives, tranquilizers, and vitamins which had to be given with Marsilid, the extra attention necessitated by side effects, the psychotherapy and the possible drug reactors in the group undoubtedly contributed to the therapeutic outcome.

Every patient had side reactions to Marsilid; some of which were serious. Anxiety over autonomic side effects, postural hypotension, edema and psychoses, were the most serious side reactions.

Psychotherapy was essential for patients treated with Marsilid.

This drug was not always a psychic energizer. It also was a tranquilizer or a psychotomimetic drug. It should be prescribed cautiously for ambulatory patients who can be carefully supervised.

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11 So. LaSalle Chicago 3

OBSTETRIC CASE REPORT*

M. S., a 32 year old white, Rh positive, STS negative, para 3-0-0-3 was admitted on May 30, 1957 because of a bloody vaginal discharge. LMP was January 16, 1957 and EDC was October 23, 1957.

The patient was first seen in the obstetric clinic on March 20, 1957, at which time her past history, family history and obstetric history were not unusual. The initial physical examination was within normal limits. Pelvic findings were consistent with intrauterine pregnancy of 12 weeks gestation. The initial hemoglobin was 12 grams.

During her prenatal course, the patient was hospitalized in April for three days because of hyperemesis. The urine was positive for albumin on two occasions, but the highest recorded blood pressure was 128 systolic over 80 diastolic. The patient noted a bloody vaginal discharge without pain or discomfort for one week prior to admission.

On admission to the hospital, the fundus of the uterus was palpable 4 centimeters above the umbilicus. The organ was soft and symmetrical. The fetal heart was not detected and had not been heard during the prenatal visits. The patient could not recall noticing any definite fetal movements. On pelvic examination, the cervix was soft, but uneffaced and undilated. No definite fetal parts could be balloted. The hemoglobin on admission was 9 grams and the urinalysis was negative.

Roentgenologic studies of the abdomen and pelvis failed to reveal any calcified fetal parts.

Two chorionic gonadotrophin titer studies were done in one week while the patient was in the hospital. The first was 400,000 international units/liter and the second 800,000 units/liter.

A consideration of all the findings resulted in the diagnosis of a hydatidiform mole. The patient was given blood transfusions and antibiotics. After two intravenous infusions of Pitocin® and rupture of the membranes, she expelled a large hydatidiform mole consisting of numerous variously sized translucent vesicles. Six days after the expulsion, the patient was subjected to uterine curettage which revealed no further molar tissue.

A microscopic examination of the original tissue revealed hydropic degeneration and trophoblastic proliferation, confirming the clinical diagnosis of a benign hydatidiform mole.

The pregnancy test became negative on the 21st day. The patient was discharged, to be followed in the clinic at monthly intervals with chorionic gonadotrophin studies for at least one year during which time it was emphasized to her the importance of not becoming pregnant.

DISCUSSION

A hydatidiform mole occurs about once in 2000 pregnancies. While the most frequent symptom is uterine bleeding, other clinical observations often associated with a mole are: hyperemesis, albuminuria, anemia, toxemia, excessive uterine

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growth, and absence of a fetus when gestation is of sufficient duration. Often the diagnosis is made when the characteristic vesicular tissue is passed. As a diagnostic method, the chorionic gonadotrophin studies must be used with caution. More than one titer should be obtained and a titer rising between the 10th and 20th week is more significant. A non-viable mole may be associated with negative pregnancy tests.

In management, the instrumental evacuation of a mole should be limited to uteri under the 16 week gestation size.

A dilatation and curettage of the uterus after spontaneous or induced expulsion is indicated to make certain of the complete removal of chorionic tissue.

Anemia, hemorrhage, and infection are common complications and should be guarded against. Chorionepithelioma follows in about 2 per cent of benign moles but the definite danger mandates long range follow-up. The occurrence of a new pregnancy is a troublesome consideration if a pregnancy test becomes positive during follow-up.



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EDITORIAL

WHO PAYS FOR THE DOCTOR?

When American medicine abandoned the didactic method of training physicians it took gigantic strides forward. It now allowed students to recreate for themselves in the laboratory basic problems of the normal and abnormal; to visit with the sick; to observe and profit by actual experience. Medical education thus advanced rapidly with the important discoveries and vast progress which followed in the footsteps of those young men initially trained in this new system. That the change has been for the better is now an undisputed fact. However, coincident with this, proprietary medical colleges which prospered for almost a century found it impossible to keep abreast of the requirements of modern medical education through income derived from the payment of student fees alone. Therefore, virtually all of these schools disappeared or were absorbed by other agencies.

Developments in medical science have continued to appear, heaping themselves upon the already formidable knowledge on record. The cost of allowing the student to acquire information for himself and the expense of providing the physical plant necessary for the purpose, has steadily risen and is now parallel to the wonderful achievements the system has produced.

In a survey of medical teaching costs published in 1956 it was established that the average expense of graduating one young man as a physician was approximately \$15,600. This figure was *EXCLUSIVE* of such ancillary costs as research produced in the medical college and the cost for operating school-sponsored hospitals. Average tuition fees paid amounted to \$2,280. This left a balance of \$12,720 to be assumed by someone else other than the student himself.

The medical college had to obtain this amount through appropriations from other sources such as taxes, endowments or gifts. This four year investment of the medical college is based only on the appraisal of the student on admission to the Medical College and implies an investment on the hope that he will become a good citizen and a good physician dedicated to improving the health of his community.

Even this apparently large sum does not represent the total investment in the student. Indeed it does not include many of the costs of services provided by a large volunteer faculty, a pro rata of costs of building and equipment and other capital improvements, expenses arising from deterioration or depreciation, and the costs for patient care in the affiliated hospitals where clinical teaching is carried out.

The School of Medicine of the University of Maryland has experienced costs close to the average for the medical schools in the United States. In the State-sponsored

University Hospital only 40 per cent of the operating cost is derived from State appropriation, 60 per cent of the hospital cost being assumed by paying patients. The important role private patients play in the education of medical students and house officers is readily noted.

In an effort to increase the educational opportunities for training both at the student and house officer level, medical schools have continually supported intern and resident staffs which are larger than the usual voluntary hospital. A recent survey of the University Hospital as compared to another large and similar Baltimore hospital showed a comparison of 117 residents in the University as opposed to 18 residents in the voluntary non profit institution and a total number of 34 house officers in the latter as compared with a total of 147 in the University Hospital. The ratio of patients to house officers admitted per day in the non-profit hospital was .85 and in the University Hospital the ratio was only .28. This is costly, but the policy adopted is designed to broaden the resident's educational base and to give students and house officers alike as rich an experience as possible.

The study of medicine today is a great privilege, not only because students are carefully selected as candidates for this honorable profession, but also because of the enormous financial stake the community or the sponsoring institution or school is making in their behalf on the assumption that they will become active and valuable additions to the medical community and to the nation. The medical student in particular should be appraised of this investment in his behalf and should recognize that although his financial contribution might seem formidable to him, in reality, it represents but a small fraction of the total financial cost of his education.

Physicians who are in a position to contribute their time and energy are well recognized for their educational contribution by the medical school. Such services are not only absolutely essential but are sometimes invaluable and cannot be matched. Students likewise, should understand the sacrifice and the interest of the volunteer instructor. Although the cost might be intangible to him, the student should include this in his total evaluation of the education received.

Practicing physicians unable to contribute their services directly into medical education, realizing the enormous and increasing costs, should certainly turn their attention to the National Fund for Medical Education and the American Medical Education Foundation (sponsored by the American Medical Association) in its annual drive for contributions for distribution to their Alma Mater.

THE EFFECT OF ASCORBIC ACID UPON THE INACTIVATION OF ESTRONE BY RATS ON A LOW PROTEIN DIET*

RAYMOND E. VANDERLINDE†, Ph.D. AND WILLIAM M. HEADLEY‡, M.D.

A relationship between the nutritional status of an animal and the ability of the liver to inactivate estrogen was initiated by the Biskinds in 1941. These investigators found that rats on a vitamin B-complex deficient diet lost the ability to inactivate estrogen (1-3). Segaloff and Segaloff (4) and Singher et al. (5) found thiamin and riboflavin to be the members of the vitamin B-complex necessary for normal estrogen metabolism by the liver. However, these results were shown subsequently to be caused by the decreased food intake that accompanies an acute deficiency of these particular vitamins (6, 7). It was further shown by Jailer and Seaman (8) and by Vanderlinde and Westerfeld (9) that the inanition effect results from a decreased protein intake rather than to a caloric restriction. Estrone pellet implanted rats were found to be unable to inactivate estrogen as evidenced by positive vaginal smears when maintained on a low protein (8 per cent casein) diet adequate in all known dietary essentials.

The effects of acute inanition and a low protein diet on various liver constituents have been found to be somewhat similar. Glutathione is a liver constituent which has been found to undergo a severe loss in either starvation or a low protein diet (10). A low protein diet has been reported to result in a decreased synthesis of ascorbic acid in the white rat (11). This study reports the effects of glutathione and ascorbic acid on the estrogen inactivating ability of estrone pellet implanted rats maintained on a low protein diet.

EXPERIMENTAL

Adult albino female rats obtained from Albino Farms, Bainbridge, New York and weighing 150-225 gm. were ovariectomized and implanted with a pellet of estrone in the mesentery according to the method of Burrill and Greene (12). The experimental diet was started following a three week control period of anestrus smears during which the rats were fed Purina dog chow. The experimental low protein diet consisted of: purified casein 8 gm. %; Wesson oil 2 gm. %; cod liver oil 1 gm. %; P and H salts 4 gm. %; sucrose 81 gm. %; choline 100 mg. %; nicotinic acid 2.5 mg. %; calcium pantothenate 1.0 mg. %; riboflavin 0.4 mg. %; thiamine 0.4 mg. %; and pyridoxine 0.4 mg. %. Vaginal smears were taken daily until the experiment was terminated (T). Within an 8-10 week period after the start of the 8 per cent casein diet the animals showed continuous positive vaginal smears because of their inability to inactivate estrone as had been demonstrated previously by Vanderlinde

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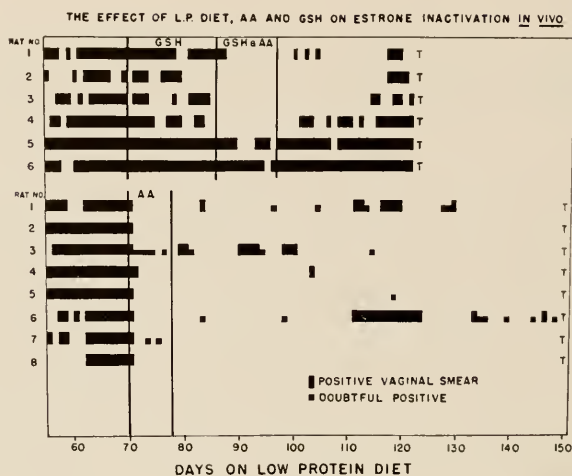


FIG. 1

and Westerfeld (9). Beginning on the first day of the eleventh week 25 mg. of glutathione (GSH) in 0.5 cc. physiologic saline was injected intraperitoneally daily for two weeks. This was then followed by daily injections of 50 mg. of ascorbic acid (AA) in addition to the glutathione (GSH) for two more weeks. In a separate experiment ascorbic acid (AA) alone was injected for 8 days. The effect of the glutathione (GSH) and/or ascorbic acid (AA) on estrone inactivation by the low proteins diet rats was observed by the vaginal smear method.

RESULTS AND DISCUSSION

The effect of glutathione (GSH) on estrone inactivation was sporadic, since an irregular pattern of positive and negative smears was observed (Figure 1, upper half). When ascorbic acid (AA) was added along with glutathione (GSH), 4 of the 6 low protein diet rats regained completely the ability to inactivate estrone. Even after the injections of GSH and AA were stopped, up to three weeks elapsed before positive vaginal smears reappeared. Animals 5 and 6 were unable to inactivate estrone even when ascorbic acid (AA) was administered. There are several possible explanations to account for this: (a) glutathione (GSH) and ascorbic acid (AA) had no effect, (b) collateral circulation may have developed, (c) the estrone pellets were misplaced on implantation, and (d) an overwhelming amount of estrone was absorbed from the pellet. The experiment was terminated (T) after 122 days.

In a second series of experiments, ascorbic acid (AA) alone was injected. It was observed that within two days after the first injection of AA, negative smears were obtained from 7 of the 8 rats used with one rat showing borderline smears (Figure 1, lower half). Once the injections were stopped, it was expected that the rats would again show continuous positive smears but instead an irregular pattern of positive and negative smears was obtained. This may have been caused by residual ascorbic acid (AA) being held in the tissues as a result of the large doses administered. The experiment was terminated (T) after 150 days.

These *in vivo* experiments suggest that ascorbic acid (AA) may counteract the effect of a low protein diet on estrogen inactivation. We are therefore studying by *in vitro* experiments the possible role of ascorbic acid (AA) in estrogen metabolism (13).

SUMMARY

Rats maintained on an 8 per cent casein diet could not inactivate intrasplenic implanted pellets of estrone but daily intraperitoneal injections of ascorbic acid (AA) resulted in a recovery of the ability to inactivate the estrone pellets.

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AN EASY OFFICE PROCEDURE FOR STAINING SUPERFICIAL FUNGI WITH FOUNTAIN PEN INK

MORRIS M. COHEN, M.D.*

In a previous report written by the author (1) on the use of fountain pen ink (Parker 51 superchrome blue-black) in staining tinea versicolor (*M. furfur*), further investigation revealed this method to be of value in the staining of other superficial fungi of the skin. Scrapings taken from the interdigital spaces of the toes, feet, crural region, nails and other areas of the body were found to be positive with this ink stain. Infected fluorescent hairs seen in tinea capitis as well as vesicles and blister tops of the skin were also examined. In many instances when direct scrapings are taken and examined with potassium hydroxide solution, one may fail to observe the mycelial elements in the preparation especially, when there are only a few threads present. However, with Parker 51 superchrome blue-black ink the mycelial threads are observed quickly, distinctly, and without searching for too long a period of time which occurs occasionally with ordinary potassium hydroxide preparations.

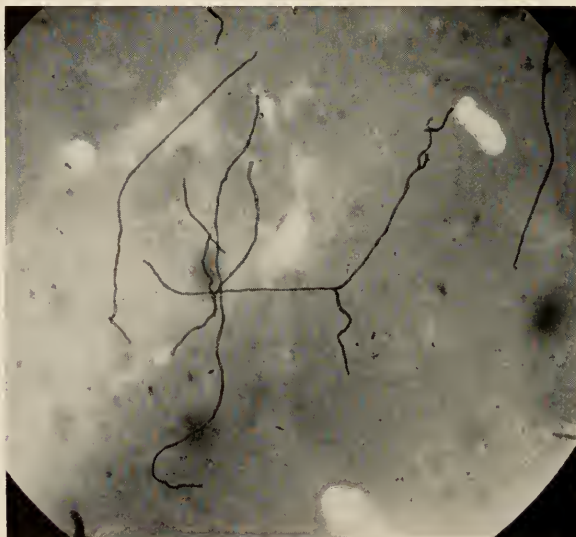


FIG. 1. Photograph shows a positive scraping taken from the plantar surface of the foot and demonstrating the stained mycelial threads and individual septa.

The stain is prepared according to the following formula:

Add 10 c.c. of Parker 51 superchrome blue-black ink to 20 c.c. of 20 per cent of potassium hydroxide solution. This staining solution may then be stored in a regular one ounce glass bottle containing a plastic screw type top. The staining solution will hold up for six or more months without deterioration.

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In the use of the stain one employs the following technique:

1. Scrapings or other material to be examined are placed on a clean slide and two drops of the above formula are added.
2. A cover glass slip is then placed over the stained material and the excess stain is removed by applying light pressure over the cover glass with a blotter.
3. After allowing the preparation to stand for fifteen minutes it is examined, first under a low power dry lens and then under a high power dry lens.

If enough clearing has not occurred because of the thickness of the material then one should permit the preparation to stand for one to two hours before examining under the microscope. This is especially true of nails, hair and other hyperkeratotic specimens.

On examination under the microscope it will be observed (see photomicrograph Fig. 1) that the mycelial threads stain a darker color as compared to the background which is lighter in color. It is this contrast which makes it easy to detect the presence of the mycelia under the microscope. The individual septa are well defined and stand out distinctly. The described technique has been proficient in the diagnosis of epidermophytosis, tinea cruris, tinea circinata, onychomycosis and tinea capitis. In several instances where the mycelial threads were not observed with the ordinary potassium hydroxide preparation, these were readily detected when the ink technique was used. Cultures of different superficial fungi were stained with the ink method which appeared to work quite well.

SUMMARY

A technique is described for the staining of superficial fungi by the use of a solution containing Parker 51 superchrome blue-black ink. The procedure is simple, rapid and one that can be carried out very easily in the office by both the general practitioner and the dermatologist. The mycelial structures are stained and stand out clearly, so that they will not be overlooked when searched for under the microscope.

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DEPARTMENT
OF
OBSTETRICS & GYNECOLOGY

SCHOOL OF MEDICINE
UNIVERSITY OF MARYLAND

*Summary of Admissions, Discharges
and
Perinatal Mortality*

July 1, 1956 through June 30, 1957

I. SUMMARY—OBSTETRICS

	White Ward	Negro	Private	Total
1. Number of patients discharged.....	374	2021	1487	3882
2. Number of patients delivered and discharged (twins 33 sets, triplets 1 set)...	342	1877	1372	3591
A. Patients delivered of viable infants..	341	1867	1323	3531
B. Patients aborting.....	1	10	49	60
3. Maternal mortality.....	0	1	0	1
A. Rate per 1000 live births.....	0.0	0.6	0.0	0.3
4. Number of viable babies born.....	345	1895	1330	3570
A. Term.....	310	1544	1229	3083
B. Premature*.....	32	323	87	442
C. Immature†.....	3	28	14	45
5. Number born alive.....	338	1852	1312	3502
A. Term.....	309	1529	1221	3059
B. Premature.....	26	303	83	412
C. Immature.....	3	20	8	31
6. Number stillborn.....	7	43	18	68
A. Term.....	1	15	8	24
B. Premature.....	6	20	4	30
C. Immature.....	0	8	6	14
D. Rate per 1000 live births.....	20.7	23.2	13.7	19.4
7. Number of neonatal deaths.....	7	64	28	99
A. Term.....	1	9	10	20
B. Premature.....	3	37	10	50
C. Immature.....	3	18	8	29
D. Rate per 1000 live births.....	20.7	34.5	21.3	28.2
8. Total perinatal mortality.....	14	107	46	167
A. Rate per 1000 live births.....	41.4	57.7	35.0	47.6
9. Rate deducting immature deliveries....	32.5	43.7	24.3	35.2

* A premature baby is one which weighs between 1001 grams and 2500 grams.

† An immature baby is one which weighs between 401 grams and 1000 grams.

II. TOTAL DELIVERIES BY NUMBER OF PRENATAL EXAMINATIONS

Number of Examinations	White Ward	Negro	Private	Total	Fetal Loss	
					No.	Per Cent
0.....	124	247	6	377	34	9.0
1-3.....	43	211	46	300	33	11.0
4-7.....	56	580	162	798	36	4.5
8 or more.....	84	755	863	1702	32	1.9
Elsewhere.....	25	19	12	56	2	3.5
Unknown.....	13	83	241	337	30	8.9
Total.....	345	1895	1330	3570	167	4.68

III. TOTAL DELIVERIES BY PRESENTATION

Presentation	White Ward	Negro	Private	Total	Fetal Loss	
					No.	Per Cent
Vertex.....	322	1803	1276	3401	122	3.6
Breech.....	19	74	46	139	40	28.8
Face.....	2	5	0	7	1	14.3
Brow.....	0	0	0	0	0	0.0
Compound.....	1	4	7	12	1	8.7
Transverse.....	1	9	1	11	3	27.3
Unknown.....	0	0	0	0	0	0.0
Total.....	345	1895	1330	3570	167	4.68
Twins.....	8	56	10	74	17	23.0
Other multiple births.....	0	0	3	3	0	

IV. TOTAL OPERATIONS FOR DELIVERY

A. Forceps and Cesarean Section and Other Operations

	White Ward, No.	Negro, No.	Private, No.	Total		Fetal Loss	
				No.	% Del.	No.	%
Low forceps, elective.....	147	851	913	1911	53.6	30	1.6
Low forceps, indicated.....	24	66	54	144	4.0	8	5.6
Mid forceps, elective.....	3	13	24	40	1.1	2	5.0
Mid forceps, indicated.....	2	9	8	19	0.5	2	10.0
Total forceps.....	176	939	999	2114	59.2	42	2.0
Cesarean section.....	12	80*	38	130*	3.6	14	10.8
Breech, spontaneous.....	1	24	10	35	1.0	19	54.3
Breech, extraction.....	14	42	26	82	2.3	20	24.4
Breech, decomposition.....	0	1	5	6	0.2	1	16.7
Breech, forceps to aftercoming head.....	11	25	26	62	50.5	6	9.7
Total breech.....	15	67	41	123	3.5	40	32.5
Craniotomy and other destructive operations...	0	1	0	1	—	1	100.0
Version and extraction (single).....	1	3	2	6	—	3	50.0
Version and extraction (multiple).....	1	2	0	3	—	0	0.0
Spontaneous.....	140	800	250	1190	33.3	67	5.6

* 3 sets of twins.

B. Episiotomy

	White Ward	Negro	Private	Total
Median.....	227	1070	1085	2382
3° laceration.....	6	62	13	81
Per cent.....	2.6	5.8	1.1	3.4
4° laceration.....	8	32	14	54
Per cent.....	3.5	3.0	1.3	2.3
Mediolateral.....	8	85	41	134
3° laceration.....	1	0	0	1
Per cent.....	12.5	0.0	0.0	0.7
4° laceration.....	0	0	0	0
Per cent.....	0	0	0	0
Total.....	235	1155	1126	2516

C. Other Operations

	White Ward, No.	Negro, No.	Private, No.	Total		Fetal Loss	
				No.	% Del.	No.	%
Hysterostomy.....	0	1	3	4	0.1	1	25.0
External version.....	0	1	3	4	0.1	1	25.0
Induction of labor by rupture of membranes.....	0	1	2	3	0.1	0	0.0
Pitocin induction.....	1	6	37	44	1.2	4	9.9
Induction of labor, other.....	2	21	4	27	0.8	2	7.4
Pitocin stimulation.....	3	18	54	75	2.1	5	6.7
Manual removal of placenta.....	12	41	39	92	2.6	—	—
Repair of cervical laceration.....	7	47	19	73	2.1	—	—
Repair of vaginal laceration.....	13	64	12	89	2.5	—	—
Prolapse of cord.....	4	12	10	26	0.8	10	38.5
Willet forceps.....	0	1	0	1	—	0	0.0
Single transfusion.....	11	47	23	81	2.3	—	—
Multiple transfusion.....	6	20	9	35	0.1	—	—
Shoulder dystocia.....	0	4	1	5	—	0	0.0

D. Total Number of Deliveries with Previous Cesarean Section

	White Ward, No.	Negro, No.	Private, No.	Total		Fetal Loss	
				No.	% Del.	No.	%
Vaginal delivery.....	2	15	6	23	31.9	3	13.0
Repeat cesarean section.....	4	33	12	49	68.1	1	2.0
Total.....	6	48	18	72	100.0	4	5.6

V. TOTAL NUMBER OF LIVE BIRTHS ACCORDING TO WEIGHT AND CONDITION AT DISCHARGE

Birth Weight, Grams	White Ward			Negro			Private			Total		
	Total live births	Died	% Deaths	Total live births	Died	% Deaths	Total live births	Died	% Deaths	Total live births	Died	% Death
401-1000.....	3	3	100.0	20	18	90.0	8	8	100.0	31	29	93.5
1001-1500.....	2	1	50.0	47	26	55.3	7	6	85.7	56	33	58.9
1501-2000.....	3	1	33.3	62	9	14.5	12	2	16.7	77	12	15.6
2001-2500.....	21	1	4.8	194	2	1.0	64	2	3.1	279	5	1.8
2501 & over.....	309	1	0.3	1529	9	0.6	1221	10	0.8	3059	20	0.7
Total.....	338	7	2.1	1852	64	3.5	1312	28	2.1	3502	99	2.8

VI. TOTAL NUMBER OF STILLBIRTHS ACCORDING TO WEIGHT

Birth Weight, Grams	White Ward			Negro			Private			Total		
	Total births	Still-births	% Still-births	Total births	Still-births	% Still-births	Total births	Still-births	% Still-births	Total births	Still-births	% Still-births
401-1000.....	3	0	0.0	28	8	28.6	14	6	42.9	45	14	31.1
1001-1500.....	5	3	60.0	58	11	19.0	9	2	22.2	72	16	22.2
1501-2000.....	5	2	40.0	67	5	7.5	14	2	14.3	86	9	10.5
2001-2500.....	22	1	4.6	198	4	2.0	64	0	0.0	284	5	1.8
2501 & over.....	310	1	0.3	1544	15	1.0	1229	8	0.7	3083	24	0.8
Total.....	345	7	2.0	1895	43	2.3	1330	18	1.4	3570	68	1.9

VII. TOTAL NUMBER OF STILLBIRTHS AND NEONATAL DEATHS ACCORDING TO WEIGHT

Weight, Grams	White Ward			Negro			Private			Total		
	Total births	Stillbirths & neonatal deaths	%	Total births	Stillbirths & neonatal deaths	%	Total births	Stillbirths & neonatal deaths	%	Total births	Stillbirths & neonatal deaths	%
401-1000.....	3	3	100.0	28	26	92.9	14	14	100.0	45	43	95.6
1001-1500.....	5	4	80.0	58	37	63.8	9	8	88.9	72	49	68.1
1501-2000.....	5	3	60.0	67	14	20.8	14	4	28.6	86	21	24.4
2001-2500.....	22	2	9.9	198	6	3.0	64	2	3.1	284	10	3.5
2501 & over.....	310	2	0.6	1544	24	1.6	1229	18	1.5	3083	44	1.4
Total.....	345	14	4.1	1895	107	5.6	1330	26	2.0	3570	167	4.68

VIII. ETIOLOGY OF PERINATAL MORTALITY

	Premature			Full Term			Total
	W.W.	Negro	Private	W.W.	Negro	Private	
Hemorrhage, intracranial.....	0	8	0	1	2	4	15
Precipitate labor.....	0	1	0	0	1	4	6
Breech.....	0	7	0	1	0	0	8
Vertex.....	0	0	0	0	1	0	1
Anoxia.....	8	40	12	1	12	4	77
Placenta—premature separation of...	5	24	8	0	5	2	44
Placenta previa.....	1	4	3	0	0	0	8
Toxemia.....	1	9	0	1	2	0	13
Cord—umbilical compression of.....	1	3	1	0	3	1	9
Complications—medical.....	0	0	0	0	2	1	3
Development—anomalies of.....	2	2	1	0	3	4	12
Infections.....	0	0	0	0	0	0	0
Immaturity.....	1	16	8	0	0	0	25
Atelectasis.....	0	0	0	0	2	2	4
Erythroblastosis.....	1	0	1	0	0	3	5
Undetermined.....	0	17	6	0	5	1	29

IX. CAUSES OF PREMATURITY AND IMMATURITY

	White Ward	Negro	Private	Total
Toxemia.....	1	38	2	41
Hemorrhage.....	12	45	17	74
Premature rupture of membranes.....	2	70	19	91
Multiple pregnancy.....	3	34	6	43
Maternal diseases.....	0	3	0	3
Cervical pathology.....	2	3	1	6
Fetal abnormalities.....	2	15	8	25
Fetal death in utero.....	0	12	4	16
Undetermined.....	13	131	44	188
Total.....	35	351	101	487

X. COMPLICATIONS

A. Total Number of Deliveries with Toxemia

	White Ward		Negro		Private		Total		Fetal Loss	
	No.	% Del.	No.	% Del.	No.	% Del.	No.	% Del.	No.	% Del.
Acute toxemia	18	5.2	155	8.2	43	3.2	216	6.1	11	5.1
Pre-eclampsia	17	4.9	149	7.9	41	3.1	207	5.8	11	5.3
Eclampsia	1	0.3	6	0.3	2	0.2	9	0.3	0	0.0
Chronic hypertension	20	5.8	163	8.6	41	3.1	224	6.3	21	9.4
With toxemia	3	0.9	28	1.5	0	0	31	0.9	6	19.4
Without toxemia	17	4.9	135	7.1	41	3.1	193	5.4	15	7.8
Total	38	11.0	318	16.8	84	6.3	440	12.4	32	7.3

B. Total Number of Deliveries—Rh Negative

	White Ward		Negro		Private		Total		Fetal Loss	
	No.	% Del.	No.	% Del.	No.	% Del.	No.	% Del.	No.	%
Rh Neg., sensitized	3	0.9	8	0.4	17	1.3	28	0.8	7	25.0
Rh Neg., not sensitized	43	12.5	125	6.6	209	15.7	377	10.6	13	3.4
Other isoimmunization	2	0.6	2	0.1	9	0.7	13	0.4	0	0.0
Total	48	14.0	135	7.1	235	17.7	418	11.8	20	4.8

C. Total Number of Deliveries with Medical Complications

	White Ward, No.	Negro, No.	Private, No.	Total		Fetal Loss	
				No.	% Del.	No.	%
Heart disease	7	26	10	43	1.2	3	7.0
No failure	4	18	9	31	0.9	2	6.5
Failure	3	8	1	12	0.3	1	8.3
Tuberculosis	5	28	11	44	1.2	2	4.5
Pulmonary, active	0	3	1	4	0.1	0	0.0
Pulmonary, inactive	5	22	10	37	1.0	2	5.4
Elsewhere	0	3	0	3	0.1	0	0.0
Diabetes	0	11	7	18	0.5	4	22.2
Sickle cell anemia	0	5	0	5	0.1	0	0.0
Syphilis	2	44	1	47	1.3	9	19.1

D. Prolonged Labor

	White Ward	Negro	Private	Total	Fetal Loss	
					No.	Per Cent
Pitocin stimulation	2	7	3	12	1	8.3
Spontaneous delivery	0	6	3	9	1	11.1
Elective forceps	0	10	6	16	0	0.0
Indicated forceps	2	5	1	8	1	8.3
Cesarean section	0	3	1	4	0	0.0
Breech	1	1	1	3	1	33.3
Total	5	32	15	52	4	7.7

E. Total Number of Deliveries by Pelvis

Type of Pelvis	Cases			By Roentgen-ray			Fetal Loss (Cases)		Fetal Loss (Roentgen-ray)	
	W. W.	Negro	Private	W.W.	Negro	Private	No.	%	No.	%
Normal.....	304	1620	1272	22	91	68	113	3.5	5	2.8
Contracted inlet.....	3	62	3	3	31	2	4	5.9	3	8.3
Midplane contraction.....	3	19	13	2	7	9	0	0.0	0	0.0
Outlet contraction.....	1	9	6	1	1	0	2	12.5	0	0.0
Inlet and outlet.....	0	0	0	0	0	0	0	0.0	0	0.0
Inlet and midplane.....	4	56	3	3	32	3	4	6.3	1	2.6
Midplane and outlet.....	0	8	2	0	2	0	1	10.0	1	50.0
Inlet, midplane and outlet.....	0	12	1	0	8	0	2	15.4	2	25.0
Asymmetrical.....	0	4	0	0	0	0	1	25.0	0	0.0
Unknown.....	30	105	30	0	3	0	40	25.3	1	33.3
Total.....	345	1895	1330	31	175	82	167	4.7	13	4.5

F. Total Number of Deliveries with Hemorrhage

	White Ward	Negro	Private	Total		Fetal Loss	
				No.	% Del.	No.	%
Antepartum Hemorrhage							
Placenta previa.....	2	10	7	19	0.5	10	52.6
Abruptio placenta.....	8	31	14	53	1.5	29	54.7
Marginal sinus.....	1	6	4	11	0.3	5	45.4
Ruptured uterus.....	0	1	1	2	—	0	0.0
Other causes.....	8	27	9	44	1.2	15	34.1
Total.....	19	75	35	125	3.6	59	44.7

Postpartum Hemorrhage*

Total postpartum hemorrhage.....	11	57	25	93	2.6	—	—
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* Postpartum hemorrhage is defined as blood loss of 500 c.c. or more.

G. Total Number of Deliveries According to Puerperal Morbidity

Puerperal Morbidity	White Ward		Negro		Private		Total	
	No.	% Del.	No.	% Del.	No.	% Del.	No.	% Del.
One day fever.....	9	2.6	81	4.3	44	3.3	134	3.8
Puerperal infection.....	11	3.2	84	4.3	7	0.5	102	2.9
Other causes.....	11	3.2	109	5.8	26	2.0	146	4.0
Afebrile.....	314	91.0	1621	85.6	1253	94.2	3188	89.3
Total.....	345	100.0	1895	100.0	1330	100.0	3570	100.0

XI. CESAREAN SECTION

Type of Operation	White Ward	Negro	Private	Total	Fetal Loss	
					No.	%
Low cervical.....	9	58	35	102	10	9.8
Classical.....	0	10	1	11	2	18.2
Classical with tubal sterilization.....	0	4	0	4	1	25.0
Low cervical with tubal sterilization.....	3	7	1	11	0	0.0
Classical and hysterectomy.....	0	1	1	2	1	50.0
Extraperitoneal.....	0	0	0	0	0	0.0
Total.....	12	80	38	130	14	10.8

Indications for Cesarean Section

	White Ward	Negro	Private	Total	Fetal Loss	
					No.	%
1. Pelvic contractions and mechanical dystocia.....	3	48	17	68	1	1.5
A. Contracted pelvis.....	1	37	5	43	1	2.3
B. Uterine inertia.....	1	7	4	12	0	0.0
C. Malpresentation.....	0	4	4	8	0	0.0
D. Large fetus—normal pelvis.....	1	0	2	3	0	0.0
E. Failed forceps.....	0	0	2	2	0	0.0
2. Previous cesarean section.....	4	9	11	24	0	0.0
3. Hemorrhagic complications.....	4	15	7	26	11	42.3
A. Abruption placentae.....	3	7	4	14	7	50.0
B. Placenta previa.....	1	8	3	12	4	25.0
C. Ruptured uterus.....	0	0	0	0	0	0.0
4. Toxemia.....	0	1	0	1	0	0.0
5. Diabetes.....	0	3	0	3	0	0.0
6. Miscellaneous.....	1	4	3	8	1	12.5
A. Elderly primigravida.....	0	0	0	0	0	0.0
B. Prolapse of cord.....	1	1	1	3	0	0.0
C. Bad obstetrical history.....	0	0	0	0	0	0.0
D. Other.....	0	3	2	5	1	20.0

XII. THERAPEUTIC ABORTIONS

White Ward	Negro	Private	Total
0	0	1	1

XIII. STERILIZATIONS

Type of Operation	White Ward	Negro	Private	Total
A. Tubal, puerperium.....	0	10	7	17
B. Tubal, not pregnant.....	0	0	0	0
C. Accompanying cesarean section—tubal ligation...	3	0	1	4
D. Accompanying therapeutic abortion—hysterectomy and tubal ligation.....	0	0	0	0
E. Accompanying cesarean section—hysterectomy...	0	0	1	1
F. Hysterectomy, not pregnant.....	0	0	0	0
Total.....	3	10	9	22

Indications for Sterilization

	White Ward	Negro	Private	Total
Diabetes.....	0	0	0	0
Previous section.....	3	10	1	14
Hypertensive disease.....	0	0	0	0
Multiparity.....	0	0	0	0
Heart disease.....	0	0	3	3
Other.....	0	0	5	5
Total.....	3	10	9	22

XIV. MATERNAL DEATHS

Total live births.....	3502
Total maternal deaths.....	1
Total maternal death rate.....	2.08 per 1000 live births
Registered births.....	2856
Maternal deaths in registered patients.....	0
Maternal death rate in registered patients.....	0.0 per 1000 live births
Non-registered births.....	714
Maternal death in non-registered patients.....	1
Maternal death rate in non-registered patients.....	14.0 per 1000 live births

GYNECOLOGIC REPORT

7/1/56-6/30/57

I. DISCHARGES PER PATIENT

	1	2	3	4	Total
Number of patients	1027	90	21	3	1141

II. GENERAL DISCHARGE TYPE

	Ward	Private	Total
Number of discharges	778	504	1282
A. Gynecologic benign	347	286	633
1. Surgical	223	163	386
a. Minor, single	78	53	131
b. Minor, multiple	9	1	10
c. Major, single	136	107	243
d. Major, multiple	0	2	2
2. Non-operative	39	11	50
3. For diagnosis only	85	112	197
B. Gynecologic cancer	161	63	224
C. Pregnancy complications	224	91	315
D. Miscellaneous	46	64	110

III. DEATHS

	Ward	Private	Total
A. Operative	2	0	2
B. Non-operative	0	0	0
C. Diagnosis only	0	0	0
D. Cancer	10	1	11
E. Pregnancy complications	0	0	0
F. Miscellaneous	3	2	5
Total	15	3	18

IV. TRANSFERS

	Ward	Private	Total
Number	7	4	11

V. PRIMARY AND SECONDARY GYNECOLOGIC DIAGNOSIS

A. Vulva

Diagnosis	Primary Diagnosis			Secondary Diagnosis
	Number of Patients	Operative	Non-operative	Number of Patients
Abscess, Bartholin's gland	1	1	0	1
Abscess, vulva	1	1	0	1
Adenitis, Bartholin's gland	1	0	1	0
Condylomata acuminata	0	0	0	1
Cyst, Bartholin's gland	7	7	0	5
Hematoma, vulva	1	0	1	0
Imperforate hymen	1	1	0	0
Kraurosis	0	0	0	1
Leukoplakia	2	2	0	1
Lymphogranuloma	1	1	0	0
Pruritus vulvae	1	0	1	1
Syphilis	1	1	0	0
Ulcer	1	0	1	1
Vulvitis, acute	1	1	0	1
Vulvitis, chronic	0	0	0	4
Varices	0	0	0	2
Other	1	1	0	0
Total	20	16	4	19

B. Vagina

	Primary Diagnosis			Secondary Diagnosis
	Number of Patients	Operative	Non-operative	Number of Patients
Cystocele	31	29	2	53
Endometriosis	2	2	0	0
Enterocoele	5	5	0	3
Gartner's duct cyst	0	0	0	3
Hematocolpos	0	0	0	1
Hematoma	2	1	1	0
Metastatic carcinoma	0	0	0	4
Rectocele	3	3	0	74
Rectovaginal fistula (P.O.)	0	0	0	1
Rectovaginal fistula, trauma	2	2	0	0
Senile atrophy	0	0	0	1
Senile vaginitis	0	0	0	8
Stricture	0	0	0	3
Syphilis	1	0	1	0
Urethrocele	0	0	0	19
Vaginal septum	1	1	0	0
Vaginitis, fungus	0	0	0	1
Vaginitis, gonococcal	0	0	0	1
Vesicovaginal fistula (P.O.)	0	0	0	1
Other	2	1	1	0
Total	49	44	5	173

C. Cervix

Diagnosis	Primary Diagnosis			Secondary Diagnosis
	Number of Patients	Operative	Non-operative	Number of Patients
Cervicitis, acute.....	0	0	0	2
Cervicitis, chronic.....	0	0	0	426
Endometriosis.....	1	0	1	1
Hematoma (P.O.).....	1	1	0	0
Metastatic carcinoma.....	0	0	0	2
Myoma.....	1	1	0	0
Nabothian cyst.....	0	0	0	16
Polyp.....	15	15	0	14
Prolapse of stump.....	1	1	0	0
Scar following operation.....	1	1	0	0
Stenosis.....	4	4	0	6
Total.....	24	23	1	467

D. Uterus

Diagnosis	Primary Diagnosis			Secondary Diagnosis
	Number of Patients	Operative	Non-operative	Number of Patients
Adenomyosis.....	3	3	0	37
Anomaly.....	0	0	0	5
Atrophic endometrium.....	0	0	0	43
Endometrial polyp.....	15	15	0	22
Endometritis, acute.....	0	0	0	6
Endometritis, chronic.....	1	0	1	5
Endometritis, decidual.....	0	0	0	1
Endometritis, tuberculous.....	0	0	0	3
Fibromyomata.....	148	138	10	57
Fibrosis.....	0	0	0	1
Foreign body.....	2	0	2	0
Hematometra.....	2	2	0	3
Hyperplasia, endometrium.....	32	24	8	14
Intrauterine pregnancy.....	0	0	0	11
Metastatic carcinoma.....	0	0	0	3
Metritis, chronic.....	0	0	0	1
Parametritis.....	3	1	2	1
Prolapse.....	16	15	1	14
Proliferative endometrium.....	0	0	0	126
Pyometra.....	1	1	0	2
Rupture.....	3	3	0	2
Secretory endometrium.....	0	0	0	160
Subinvolution of placental site.....	0	0	0	2
Tumor cells in secretion.....	1	1	0	0
Total.....	227	203	24	519

E. Tubes

Diagnosis	Primary Diagnosis			Secondary Diagnosis
	Number of Patients	Operative	Non-operative	Number of Patients
Endometriosis.....	1	1	0	2
Hematosalpinx.....	1	1	0	7
Hydrosalpinx.....	3	3	0	15
Metastatic carcinoma.....	0	0	0	1
Other.....	1	1	0	0
Perisalpingitis, acute.....	1	1	0	1
Perisalpingitis, chronic.....	1	1	0	1
Pyosalpinx.....	1	1	0	1
Salpingitis, acute.....	13	4	9	10
Salpingitis, chronic.....	18	15	3	82
Salpingitis, tuberculous.....	0	0	0	1
Tubo-ovarian abscess (intact).....	5	5	0	5
Tubo-ovarian abscess (ruptured).....	3	3	0	0
Total.....	48	36	12	126

F. Ovary

Diagnosis	Primary Diagnosis			Secondary Diagnosis
	Number of Patients	Operative	Non-operative	Number of Patients
Abscess.....	1	1	0	2
Brenner tumor.....	0	0	0	1
Cyst, corpus luteum.....	10	10	0	27
Cyst, dermoid.....	8	8	0	6
Cyst, follicular.....	6	5	1	64
Cyst, other.....	6	5	1	11
Cyst, paroophoron.....	0	0	0	9
Cyst, simple.....	8	8	0	9
Cystadenoma, pseudo-mucinous.....	4	4	0	1
Cystadenoma, serous.....	5	5	0	7
Dysgerminoma.....	0	0	0	1
Endometriosis.....	2	2	0	11
Fibroma.....	1	1	0	2
Granulosa cell tumor.....	0	0	0	1
Krukenberg tumor.....	0	0	0	1
Oophoritis, acute.....	0	0	0	3
Oophoritis, chronic.....	1	1	0	13
Perioophoritis.....	0	0	0	2
Torsion.....	0	0	0	1
Other.....	0	0	0	1
Total.....	52	50	2	173

G. Other Gynecologic Diagnoses

Diagnosis	Primary Diagnosis			Secondary Diagnosis
	Number of Patients	Operative	Non-operative	Number of Patients
Abscess, pelvic.....	13	11	2	2
Endometriosis, extragenital.....	2	2	0	4
Endometriosis, recto-vaginal septum.....	1	1	0	0
Total.....	16	14	2	6

VI. CANCER (Based on Patients)

A. Vulva

1. Diagnosis	Number of Patients	Irradiated	Operations	Irradiated and Operated	Medical
Epidermoid.....	3	0	1	0	2
Myoblastoma.....	1	1	0	0	0
Total.....	4	1	1	0	2
2. Complications	Number				
Kraurosis.....	1				
Leukoplakia.....	1				

B. Vagina

1. Diagnosis	Number of Patients	Irradiated	Operations	Irradiated and Operated	Medical
Epidermoid.....	1	0	0	0	1
2. Complications					
None					

C. Cervix

1. Diagnosis	Number of Patients	Irradiated	Operations	Irradiated and Operated	Medical
Adenocarcinoma.....	3	1	0	0	2
Carcinoma in situ.....	17	0	12	0	5
Squamous cell.....	91	59	6	5	21
Metastatic.....	4	0	0	0	4
Total.....	115	60	18	5	32
2. Complications	Number				
Bladder metastases.....	3				
Bladder paralysis.....	1				
Chronic cystitis.....	5				
Chronic proctitis.....	1				
Hydronephrosis.....	5				
Metastatic lymph nodes out of pelvis...	2				
Metastatic lymph nodes in pelvis.....	2				
Pelvic abscess.....	1				
Pregnancy.....	2				
Pyometra.....	1				
Recto-vaginal fistula-tumor.....	4				
Urethral fistula.....	1				
Vesico-vaginal fistula.....	3				

D. Uterus

1. Diagnosis	Number of Patients	Irradiated	Operations	Irradiated and Operated	Medical
Adenocarcinoma.....	6	3	1	2	0
Metastatic.....	3	2	0	0	1
Total.....	9	5	1	2	1
2. Complications	Number				
Metastatic lymph nodes in pelvis.....	2				
Metastatic lymph nodes out of pelvis...	1				
Metastatic rectum.....	1				
Recto-vaginal fistula-tumor.....	1				
Vesico-vaginal fistula-tumor.....	1				

E. Ovary

1. Diagnosis	Number of Patients	Irradiated	Operations	Irradiated and Operated	Medical
Adenocarcinoma.....	5	1	2	0	2
P. M. cystadenocarcinoma.....	2	0	2	0	0
Serous cystadenocarcinoma.....	3	1	2	0	0
Mesonephroma.....	1	0	0	1	0
Total.....	11	2	6	1	2

2. Complications	Number	
Ascites.....	1	
Metastatic lymph nodes out of pelvis....	5	
Metastatic lymph nodes in pelvis.....	5	
Metastatic to rectum.....	1	
Metastatic to tubes.....	1	

F. Unknown Source

1. Diagnosis	Number of Patients	Irradiated	Operations	Irradiated and Operated	Medical
Lymph nodes, pelvis.....	1	0	0	0	1
Lymph nodes, groin.....	1	0	0	0	1
Total.....	2	0	0	0	2

2. Complication	Number	
None	—	

VII. PREGNANCY COMPLICATIONS

Diagnosis	Number of Patients	Operative	Non-operative
Endometritis, acute.....	4	0	4
Hydatid mole.....	2	2	0
Intrauterine pregnancy.....	17	1	16
Incomplete abortion.....	249	221	28
Subinvolution.....	2	2	0
Tubal pregnancy, unruptured.....	5	5	0
Tubal pregnancy, ruptured.....	36	36	0
Total.....	315	267	48

VIII. OTHER SYSTEMS—DIAGNOSIS

A. Rectum

Diagnosis	Primary Diagnosis			Secondary Diagnosis
	Number of Patients	Operative	Non-operative	Number of Patients
Carcinoma, Gyn origin	0	0	0	2
Chronic proctitis	1	0	1	2
Hemorrhoids	0	0	0	4
Polyp	0	0	0	4
Stricture	0	0	0	1
Other	0	0	0	1
Total	1	0	1	14

B. Urethra

Diagnosis	Primary Diagnosis			Secondary Diagnosis
	Number of Patients	Operative	Non-operative	Number of patients
Absent urethra	1	1	0	0
Carcinoma	2	1	1	0
Caruncle	2	2	0	0
Diverticulum	2	2	0	1
Fistula	1	1	0	1
Stricture	2	2	0	0
Urethritis, chronic	1	1	0	0
Total	11	10	1	2

C. Bladder

Diagnosis	Primary Diagnosis			Secondary Diagnosis
	Number of Patients	Operative	Non-operative	Number of Patients
Carcinoma, primary	11	11	0	0
Carcinoma, metastatic	0	0	0	7
Cystitis, acute	2	1	1	3
Cystitis, chronic	8	8	0	14
Other	2	2	0	0
Paralysis	0	0	0	1
Total	23	22	1	25

D. Kidney

Diagnosis	Primary Diagnosis			Secondary Diagnosis
	Number of Patients	Operative	Non-operative	Number of Patients
Absence, previous surgery	0	0	0	2
Anomalies	0	0	0	2
Calculus	2	2	0	3
Ectopic kidney	2	2	0	4
Hematuria	1	1	0	0
Hydronephrosis	1	1	0	11
Pyelitis, acute	8	2	6	3
Pyelitis, chronic	4	2	2	11
Other	1	1	0	7
Total	19	11	8	43

E. Ureters

Diagnosis	Primary Diagnosis			Secondary Diagnosis
	Number of Patients	Operative	Non-operative	Number of Patients
Calculus	4	4	0	0
Hydroureter	0	0	0	4
Stricture	0	0	0	2
Total	4	4	0	6

F. Abdominal Diseases

Diagnosis	Primary Diagnosis			Secondary Diagnosis
	Number of Patients	Operation	Non-operative	Number of Patients
Appendicitis	4	4	0	12
Ascites	0	0	0	5
Carcinoma, intestinal metastatic	0	0	0	1
Diverticulitis	1	0	1	1
Hernia, incisional	2	2	0	2
Obstruction, small intestine	3	0	3	1
Obstruction, large intestine	0	0	0	1
Pelvic thrombophlebitis	1	0	1	2
Peritonitis, pelvic	2	1	1	4
Peritonitis, generalized	1	1	0	0
Peritoneal adhesions	2	2	0	17
Miscellaneous	36	27	9	12
Total	52	37	15	58

IX. OPERATIVE PROCEDURES

A. Vulva

Operation	Number of Patients
Hymenotomy.....	2
Excision, Bartholin Gland.....	5
I. & D., Bartholin Gland.....	2
Vulvectomy, complete.....	2
Vulvectomy, radical.....	1
Biopsy of vulva.....	3
Other.....	5
Total.....	20

B. Vagina

Operation	Number of Patients
Biopsy.....	13
Closure of recto-vaginal fistula.....	2
Colpoplasty, anterior.....	2
Colpoplasty, posterior.....	17
Colpoplasty, anterior and posterior.....	47
Closure of urethrovaginal fistula.....	1
Colpotomy, diagnostic.....	99
Colpotomy, drainage.....	10
Perineorrhaphy.....	1
Other.....	3
Total.....	194

C. Uterus and Cervix

Operation	Number of Patients
Subtotal hysterectomy.....	5
Total hysterectomy.....	165
Vaginal hysterectomy.....	41
Biopsy of cervix.....	245
D & C, uterus.....	402
D & C, incomplete abortion.....	221
D & C, therapeutic abortion.....	1
Dilatation of cervix.....	6
Hysteromyomectomy.....	9
Hysteropexy, Manchester type.....	2
Hysteropexy, other types.....	14
Hysterorrhaphy.....	2
Insertion of intrauterine pack.....	2
Insertion of radium into uterus.....	74
Insertion of radium colpostats.....	75
Insufflation of uterus.....	17
Hysteroqram.....	6
Local excision of cervix.....	26
Conization of cervix.....	51
Pelvic exenteration, complete.....	1
Radical hysterectomy and lymph node dissection.....	8
Pelvic exenteration, North American.....	1
Pelvic exenteration, South American.....	1
Trachelectomy.....	9
Tracheloplasty.....	1
Others.....	2
Total.....	1387

D. Tubes

Operation	Number of Patients
Ligation.....	5
Salpingectomy, unilateral, partial.....	4
Salpingectomy, bilateral, partial.....	8
Salpingectomy, unilateral, complete.....	32
Salpingo-oophorectomy, unilateral.....	27
Salpingo-oophorectomy, bilateral.....	11
Salpingectomy.....	2
Total.....	89

E. Ovary

Operation	Number of Patients
Draining abscess	12
Local excision of ovary	10
Oophorectomy, unilateral, partial	9
Oophorectomy, unilateral, complete	11
Oophorectomy, bilateral, complete	1
Other	4
Total	47

F. Urinary System

Operation	Number of Patients
Biopsy of bladder	11
Biopsy of ureter	1
Cystorrhaphy	1
Cystectomy	2
Cystoscopy	113
Cystotomy	8
Nephrectomy	2
Nephrostomy	2
Ureterolithotomy	1
Ureterostomy	3
Urethroplasty	3
Total	147

G. Abdominal and Others

Operation	Number of Patients
Appendectomy	149
Biopsy, intestine	4
Biopsy, lymph node	7
Biopsy, mesentery	5
Colostomy	5
Culdoscopy	5
Enteroenterostomy	2
Enterorrhaphy	1
Examination under anesthesia	545
Excision of lesion of abdominal wall	2
Excision of anus	2
Exploratory laparotomy	34
Hemorrhoidectomy	2
Herniorrhaphy	8
I & D of abdominal wall	1
I & D of peritoneal cavity	1
Ligation of artery	1
Lysis, peritoneal adhesions	37
Omentectomy	1
Peritoneocentesis	3
Presacral neurectomy	4
Proctorrhaphy	4
Proctoscopy	70
Radical groin dissection	1
Sympathectomy	2
Other	64
Total	960

H. Irradiation

Type	Number of Times
Roentgen-ray	17
Radium	117
Isotopes	10
Other	1
Total	145

X. MORBIDITY AND COMPLICATIONS OF OPERATIONS

A. Minor Single

1. Total	Number	Morbidity	% Morbidity
	707	71	10.0
2. Causes of Morbidity	Number		
Infected perineum	1		
Other	2		
Pelvic abscess	6		
Thrombophlebitis	1		
Unknown	50		
Urinary tract	11		
Total	71		
3. Complications	Number		
Coronary disease	1		
Fistula	1		
Paralytic ileus	2		
Puerperal hemorrhage	1		
Secondary anemia	11		
Thrombosis	2		
Transfusion reaction	6		
Uremia	1		
Urinary retention	10		
Other	1		
Total	36		

B. Minor Multiple

1. Total	Number	Morbidity	% Morbidity
	59	9	15.2
2. Causes of Morbidity	Number		
Other	2		
Pelvic abscess	1		
Peritonitis	1		
Unknown	3		
Urinary tract	1		
Wound infection	1		
Total	9		
3. Complications	Number		
Paralytic ileus	1		
Pyelitis	1		
Secondary anemia	2		
Total	4		

C. Major Single

1. Total	Number	Morbidity	% Morbidity
	374	237	63.5
2. Causes of Morbidity	Number		
Other	6		
Pelvic abscess	2		
Peritonitis	5		
Pulmonary	15		
Septicemia	1		
Thrombophlebitis	4		
Unknown	171		
Urinary	27		
Wound infection	6		
Total	237		
3. Complications	Number		
Atelectasis	7		
Other	3		
Paralytic ileus	14		
Pulmonary embolism	1		
Pyelitis	5		
Respiratory disease	3		
Secondary anemia	11		
Transfusion reaction	1		
Urinary retention	100		
Wound breakdown	2		
Wound infection	2		
Total	149		

D. Major Multiple

1. Total	Number	Morbidity	% Morbidity
	5	5	100.0
2. Causes of Morbidity	Number		
Pelvic abscess	1		
Septicemia	1		
Unknown	2		
Wound infection	1		
Total	5		
3. Complications	Number		
Wound breakdown	1		

DEATHS

OBSTETRICS

F.L., U.H. #114-9-79. A 30 year old, white female, para 6-1-1-7, was admitted 1/8/57 because of vaginal bleeding in the 16th week of pregnancy. Patient bled for the first time on 12/7/56. She was treated conservatively until bleeding stopped on 1/13/57. Sterile vaginal examination on 1/14/57 was negative. She was discharged on 1/15/57. Her entire hospital stay was afebrile. Four days later, the patient collapsed at home and on arrival to the Accident Room, was dead. Autopsy findings:— 1. Septicemia—non-hemolytic streptococcus; 2. Amnionitis—same organism; 3. Pregnancy, undelivered, 16 to 18 weeks.

GYNECOLOGY

E.S., U. H. #115-0-94. A 28 year old, colored female, admitted 3/26/57 because of fever, abdominal pain and dysuria. Vaginal hysterectomy done 3/14/57 for prolapse, cystocele and rectocele. Patient left on 3/19/57 against advice. Readmitted and on 3/27/57 colpotomy done for drainage of pelvic abscess and on 4/4/57 incision and drainage of subphrenic abscess. Died 4/4/57. AUTOPSY: Cause of death . . . pelvic abscess; subdiaphragmatic abscess; peritonitis; recent vaginal hysterectomy.

R.J., U.H. #117-3-90. A 42 year old, colored female, admitted for uterine myomata. Total abdominal hysterectomy, bilateral salpingo-oophorectomy, appendectomy. Developed bilateral neck swelling second day postoperative and died suddenly 48 hours after operation, 4/10/57. AUTOPSY: Cause of death . . . mediastinitis, acute; edema, severe, mediastinum and retropharyngeal space; recent total hysterectomy.

R.B., U.H. #044-1-92. A 43 year old, colored female, admitted 7/16/56, terminally, with a diagnosis of carcinoma of the cervical stump made in February, 1955. Patient died 8/1/56. AUTOPSY: Carcinoma of the cervix with metastases; hydronephrosis; uremia.

B.K., U.H. #101-3-85. A 68 year old, white female, admitted 7/18/56, having been treated elsewhere with roentgen-ray therapy for advanced carcinoma of the cervix and was admitted terminally and died on 7/20/56. NO AUTOPSY. Diagnosis . . . carcinoma of the cervix with metastases; rectovaginal and vesicovaginal fistulae.

A.S., U.H. #090-4-56. A 40 year old, white female, admitted 11/1/56, for exenteration for carcinoma of the cervix, Stage II-A. An All-American exenteration done 11/7/56, died of acute renal failure 11/17/56. AUTOPSY: Diagnosis . . . carcinoma, Stage II-A; esophageal erosion; gastric erosion; exenteration, recent.

F.J., U.H. #097-3-80. A 56 year old, colored female admitted 2/7/57 because of carcinoma of the cervix, Stage IV with rectovaginal fistula and vesicovaginal fistula, a previous transverse colostomy having been done. On 2/19/57, a South American exenteration was done. Patient died 3/22/57 from septicemia. NO AUTOPSY. Diagnosis . . . carcinoma of the cervix, STAGE IV; rectovaginal fistula; vesicovaginal fistula; septicemia; postoperative South American exenteration.

E.G., U.H. #107-4-01. A 61 year old, white female admitted terminally 3/27/57 with cervical carcinoma, Stage IV with bladder involvement. Patient died 4/3/57. NO AUTOPSY. Diagnosis . . . carcinoma of the cervix, Stage IV; bladder metastases; uremia.

M.S., U.H. #064-8-93. A 51 year old, colored female admitted 3/29/57 with intestinal obstruction and carcinoma of the cervix, Stage II-A. Died 4/11/57. NO AUTOPSY. Diagnosis . . . carcinoma of the cervix, Stage II-A; intestinal obstruction.

I.B., U.H. #033-7-01. A 58 year old, colored female admitted 4/27/57 terminally because of vaginal bleeding from carcinoma of the cervix, Stage IV. Patient died the day after admission. AUTOPSY: Carcinoma of the cervix, Stage IV; hydronephrosis; recto-vesicovaginal fistula.

H.S., U.H. #087-8-47. A 34 year old, colored female, admitted 4-22-57 because of rectovesicovaginal fistula and pyelonephritis and carcinoma of the cervix, Stage III. Patient died 5/14/57. NO AUTOPSY. Diagnosis . . . carcinoma of the cervix, Stage III; multiple fistulae; pyelonephritis.

I.O., U.H. #095-3-87. A 48 year old, colored female, admitted 12/27/56. Previous gynecologic diagnosis was carcinoma, Grade 0. Diagnosis made in November of 1956. Patient admitted with infectious hepatitis and died the following day. AUTOPSY: Hepatitis, acute; carcinoma of the cervix, Stage 0, (history).

C.G., U.H. #097-1-74. A 45 year old, colored female, admitted 1/28/57. Diagnosis . . . endometrial carcinoma with pelvic and abdominal metastases obscured by large fibroids. Laparotomy revealed widespread seeding. Radium application followed on 2/9/57. On 2/12, patient experienced chest pains and expired. Autopsy permission obtained and then refused. Diagnosis . . . carcinoma of endometrium, metastases; pulmonary embolism.

E.A., U.H. #117-7-12. A 76 year old, white female, admitted 2-21-57 with carcinomatosis from ovarian carcinoma. Previous surgery elsewhere. Radioactive gold given intraperitoneally 2/26/57. Patient died 3/14/57. No autopsy requested because of the radioactive gold having been used. Diagnosis . . . carcinoma of the ovary with metastases.

R.B., U.H. #021-1-27. A 47 year old, colored female, admitted 9/8/56 terminally because of adenocarcinoma of the urethra. Died 9/10/56. AUTOPSY: Cause of death . . . carcinoma urethra; femoral phlebitis, left lower extremity; pulmonary emboli.

L.C., U.H. #055-6-54. A 77 year old, white female, admitted 1/5/57 with carcinoma of the bladder of 2½ years duration, bleeding profusely. Died 2/1/57. No autopsy. Cause of death . . . transitional cell carcinoma of the bladder with hemorrhage.

G.S., U.H. #136-6-65. A 44 year old, white female, admitted 5/17/57 with abdominal enlargement. Exploratory laparotomy 5/25/57, revealed lymphosarcoma intraperitoneal. Died 6/5/57. NO AUTOPSY. Cause of death . . . lymphosarcoma, abdominal; pulmonary hemorrhage (metastases?).

I.M., U.H. #117-2-41. A 54 year old, colored female, admitted 2/17/57 with pelvic mass. Developed sudden pain in chest 2/21/57, expired. AUTOPSY: Myocardial infarction; multiple, pelvic serous cysts.

M.E., U.H. #106-7-41. A 87 year old, white female, admitted 10/2/56 with hematuria. Developed heart failure and died 11/9/56. NO AUTOPSY. Cause of death . . . arteriosclerotic cardiovascular disease; cystitis; recent fractured hip.

OBSTETRIC CASE REPORT*

Mrs. R. E., a 32 year old gravida 4, para 3, was admitted to the hospital on November 2, 1957 in active labor at term with intact membranes.

The patient's past history and family history were not significant. Her previous pregnancies, which were distributed over the last ten years, resulted in uncomplicated vaginal deliveries from vertex presentations. The largest infant, which was delivered one year ago, weighed seven pounds and two ounces.

At the time of the initial obstetric examination the patient was felt to have an adequate pelvis although the ischial spines were somewhat prominent. The prenatal course to date was entirely uncomplicated.

The admission physical examination did not detect any abnormality of the head, neck, heart, lungs, or extremities. The blood pressure was normal and the routine laboratory studies were not remarkable. Abdominal palpation revealed the fetal head to be in the fundus of the uterus. The fetal heart tones were clearly audible to the left of the umbilicus and were normal in rate and quality. The uterine fundus measured 28 centimeters above the symphysis pubis and the estimated fetal weight was seven pounds and eight ounces.

Rectal and vaginal examinations confirmed the diagnosis of breech presentation, left sacrum anterior position, with both feet at the pelvic inlet. The cervix was found to be three centimeters dilated and the presenting part was two centimeters above the level of the ischial spines. The intact membranes were tense and bulging.

Roentgenographic pelvimetry was immediately obtained because of breech presentation. The measurements obtained from these films were: Obstetric conjugate, 11.0, transverse of the inlet, 10.4, interspinous diameter 8.8, and anterior-posterior diameter of the outlet, 12.0 centimeters. The pelvic inlet was of the android configuration with an acute pubic angle.

The patient was taken to the operating room immediately and delivered by cesarean section of a seven pound fourteen ounce full term living female child.

This case illustrates two features of a mechanical obstetric nature. Many women with small pelvic measurements may have successful labors before a larger infant or an unfavorable presentation and position result in dystocia. If difficulty with the after coming head in breech delivery is to be avoided, the pelvic capacity must be carefully evaluated before labor is advanced or delivery is in progress.

Android and platypelloid pelvis inlet shapes are particularly unfavorable for delivery of the after coming head. If bony disproportion is felt to exist, cesarean section should be done without trial of labor regardless of the patient's parity, and sometimes in spite of apparently normal progress as to cervical dilatation or descent of the presenting breech.

EDMUND B. MIDDLETON, M.D.

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Bulletin OF THE SCHOOL OF MEDICINE UNIVERSITY OF MARYLAND

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EDITORIAL **CAVEAT EMPTOR**

ARTHUR L. HASKINS, M.D.

University of Maryland, School of Medicine

Although conceived in the antiquity of barbarism, the philosophy of "let the buyer beware" remains operational at the present time. It is the guiding principle of many buyer-seller relationships in merchandising and in some of the professions. We should be proud, and the buyer of medical service is fortunate in that the medical profession has taken to itself the burden of protecting the buyer of medical service.

Quality control in medicine has extended to the several aspects of medical practice. Control of the medical school curriculum has eliminated all medical school programs other than those that could be classified as "A." In addition to the maintenance of medical school standards, the selection of medical students has ordinarily been that of extreme quality control, with only candidates selected who would apparently become good and honest physicians.

The National Board of medical licensure and the medical board licensing groups of the several states were inaugurated to protect the patient from the unqualified practitioner. In the early part of the twentieth century, in a further attempt to protect the patient and to better the practice of American medicine, the American specialty boards were conceived and instituted. These boards have no legal or no licensing value. They have simply provided a standard for specialization that has aided American medicine in achieving the world eminence which it now enjoys. More recently, the general practitioner has also arranged for board certification which insists upon high performance standards among the members.

Despite these efforts to protect the buyer of medical services, there has arisen a certain unthinking philosophy among some physicians which when translated to the ultimate indicates that they are no longer protecting the patient or buyer in the proper way. The first step in the weakening of the protection of the patient in the seller-buyer relationship is oftentimes related to the advertising presented to the physician in many subtle and varied ways.

Not the least of these is the manufacturer's representative or the detail man. He is trained to sell a product. He sells his product under many guises. He fre-

quently presents scientific material to the busy and harried physician whose total access to new medical developments may be through this man.

The presentations of the detail man are oftentimes biased, incomplete and occasionally even definitely misleading. The quotation out of context of scientific papers will often lead the physician to believe that the products that are being sold by this manufacturer are expected to do much more than they do in reality. The studies presented are oftentimes poorly controlled.

There are many examples of prescription writing in which manufacturers' products have been prescribed which are not effective. A list of such products would be legion. Some outstanding examples in obstetrics are in the use of estrogen for the accidents of pregnancy and estrogen for the prevention of postpartum lactation. In general medicine, an ineffective but widely used product, because of its advertising, has been the antihistamines used in the treatment of the common cold. Unfortunately, all of the substances that could be listed are not as innocuous as these.

More dangerous products with serious and permanent effects have been used. The dinitrophenol compound that was promoted as a weight reducing agent several years ago, but in addition was found to cause cataracts, is an example. The elixir of death given widespread publicity in the 1930's, which was a combination of sulfanilamide and ethylene glycol, is another example of a dangerous drug which was used unwittingly by the physician.

At the present time, much of the indiscriminate use of antibiotics for illnesses in which they can do no possible good, although a terrible reflection upon the thinking and integrity of the practitioner of medicine, can be traced directly to the persuasiveness of the manufacturer's representative. As a result, an unknown number of patients have been sensitized to antibiotics which were given indiscriminately and ineffectively.

Currently, various drug manufacturers are pressing upon the obstetrician and general practitioner of medicine a group of substances which are supposed to be progesterone-like in their action. These luteoid substances are varied in their chemical structures. All are more or less androgenic as well as luteoid. In many the degree of androgenicity has not been determined. In many of these substances the total potential knowledge has been partially suppressed in the attempt to compete successfully with other drug houses in the production of these new substances. An outstanding offender is an irrational combination of luteoid substance with an estrogen that is sold to the practitioner as the last word in steroid therapy for many gynecologic complaints.

So many times the statement has been made that luteoid substance may not prevent abortions but at least do no harm. A recent letter by Lawson Wilkens and Howard Jones to the editors of *Obstetrics and Gynecology* indicated that a group of seventeen female infants had been collected in which there was partial masculinization of the external genitalia. Most significant is that these masculinized female infants were born of mothers who were given large doses of

luteoid substances during pregnancy. Do we then have an example of a luteoid substance that in the final analysis, due to incomplete knowledge, does bring about definite harm to an unborn child?

The failure of the physician to adequately evaluate any new medication prior to its use on his patient performs a serious disservice. The patient is unable to evaluate properly the various drugs that are prescribed. As physicians we should not allow ourselves to be oversold by the detail man in his eagerness to promote his manufacturer's product. In the protection of our patients, we must continue the high standards mediated through the medical schools, the licensing boards, specialty boards and the board of general practice. We can accomplish this only by keeping ourselves informed of the medical literature, rather than depending upon the biased news dispensed by the manufacturer's representative whose job, after all, it is but to sell pills.

TREATMENT OF DERMATOSES WITH LOCAL APPLICATION OF TRIAMCINOLONE ACETONIDE, A NEW SYNTHETIC CORTICOID*†

A PRELIMINARY REPORT

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The value of locally applied corticoids in the control of allergic and non-allergic inflammatory dermatoses has been established. Hydrocortisone (1-4), applied locally in the form of lotions or ointments in concentrations as low as 0.5 per cent, produces a beneficial response in atopic dermatitis, seborrheic dermatitis, neurodermatitis, contact dermatitis, pruritus ani, pruritus vulvae, and other conditions. Fludrocortisone (5-6) has a similar anti-inflammatory effect, in concentrations as low as 0.1 per cent, although adverse reactions associated with absorption have been reported. Ethamicort (7), in concentrations of 0.5 per cent in petrolatum, has an anti-inflammatory effect similar to that of hydrocortisone and fludrocortisone.

A new synthetic corticoid, triamcinolone acetonide (Kenalog), which has the structural formula, 9- α -fluoro-16 α , 17 α -isopropylidene-dioxy-delta-1, 4 pregnadiene-11 beta, 21 diol-3, 20 dione has been recently developed (Fried et al. (8)). Preliminary animal studies indicate that it has 40 times the anti-inflammatory action of hydrocortisone in adrenalectomized rats, and causes excretion of sodium. The purpose of this paper is to summarize the results of local administration of this new product in 306 patients.

PREPARATIONS USED AND METHOD OF OBSERVATION

In view of previous experiences with other steroids used locally, Kenalog was first used in a pilot study in lotion base, in concentrations of 0.5 per cent, 0.1 per cent, and 0.05 per cent, utilizing a double blind, paired comparison method with 1 per cent hydrocortisone and 0.1 per cent fludrocortisone in identical base.

Later studies on a larger scale utilized the drug in 0.1 per cent concentration in oleaginous ointment base, water miscible ointment base, and lotion base. Combinations of the drug with nystatin, neomycin and gramicidin* were incorporated in water miscible base, and with neomycin and gramicidin in lotion base.**

Earlier studies with locally applied steroids had indicated that involved sites distant from the area of application showed signs of improvement. Therefore paired comparison studies were considered subject to criticism after 48 hours. Individuals selected for paired comparison studies were instructed to apply hydro-

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† Supported by a grant-in-aid from E. R. Squibb & Sons.

* Myconeï (new formula).

** Kenalog with spectrocin.

cortisone ointment or lotion to one extremity and Kenalog ointment or lotion to the other extremity. At the end of 48 hours, the condition of the two extremities was noted. Forty patients were treated in this manner.

Two hundred fifteen patients were treated with Kenalog ointment or lotion alone.

PATIENT SELECTION

Patients used in this study were obtained from the author's private practice and from patients at the Women's Hospital in Baltimore.

THE STUDY

Code-labeled lotions containing 0.1 per cent fludrocortisone, 1.0 per cent hydrocortisone or 0.1 per cent Kenalog were used on 35 patients with the following results:

TABLE I

CODE-LABELED PAIRED COMPARISON STUDY OF 35 PATIENTS WITH ECZEMATOUS DERMATOSES, TREATED WITH LOTIONS CONTAINING 0.1% FLUDROCORTISONE, 1.0% HYDROCORTISONE OR 0.1% KENALOG

Preparations	Number of Patients	Patient Preference		Kenalog	No Preference
		Hydrocortisone	Fludrocortisone		
Hydrocortisone and Kenalog	11	1		1	9
Fludrocortisone and Kenalog	13		1	3	9
Hydrocortisone and Fludrocortisone	11	1	1		9

De-coding of the labels was not attempted until this pilot study was completed. As may be seen in Table I there was no significant difference in anti-inflammatory action between the three preparations.

On the basis of the results in the pilot study, a larger group of patients was treated with ointments, creams, and lotions containing 0.1 per cent Kenalog.

Forty patients were observed in a paired comparison study of 1.0 per cent hydrocortisone and 0.1 per cent Kenalog in water miscible ointment base. Results are tabulated in Table II.

TABLE II

PAIRED COMPARISON STUDY OF 40 PATIENTS WITH INFLAMMATORY DERMATOSES, TREATED WITH 1% HYDROCORTISONE AND 0.1% KENALOG IN WATER-MISCIBLE OINTMENT BASE

Improvement—48 hours*		Patient Preference		
Hydrocortisone	Kenalog	Hydrocortisone	Kenalog	No Preference
38	38	3	12	23

* No follow-up observation on two patients.

Table II indicates that 0.1 per cent Kenalog in water miscible base is as least as effective as 1.0 per cent hydrocortisone in an identical base. It is significant that 12 patients preferred Kenalog to hydrocortisone, while only 3 felt that hydrocortisone was superior. This part of the study was done with code-labeled preparations, no attempt being made to identify the steroids until results had been tabulated. Similar paired comparison studies were carried out with the two steroids in oleaginous ointment base and water miscible lotion base. Results were comparable to those obtained with the water miscible ointment base.

Since the effectiveness of 0.1 per cent Kenalog had now been shown to be at least as great as 1.0 per cent hydrocortisone in identical bases, a considerably larger series of patients was treated with the new steroid, alone and in combination with neomycin, gramicidin, and nystatin, or with neomycin and gramicidin.

A total of 215 patients with atopic dermatitis, seborrheic dermatitis, localized neurodermatitis, pruritus ani, pruritus vulvae and psoriasis were treated with Kenalog in oleaginous or water miscible ointment bases or lotion base. The results are tabulated in Table III.

TABLE III
215 PATIENTS WITH VARIOUS DERMATOSES TREATED WITH 0.1% KENALOG

Disease	Number Patients	No follow up	Satisfactory result	No improvement
Atopic dermatitis.....	82	6	74	2
Seborrheic dermatitis.....	36	4	31	1
Contact dermatitis.....	46	6	38	2
Localized neurodermatitis.	20	3	17	0
Pruritus ani.....	10	1	8	1
Pruritus vulvae.....	8	0	7	1
Psoriasis	13	2	2	9

Table III indicates that 0.1 per cent Kenalog in water miscible ointment base, oleaginous ointment base or lotion base is effective local treatment for atopic dermatitis, seborrheic dermatitis, contact dermatitis, localized neurodermatitis, pruritus ani and pruritus vulvae. There was no significant effect on lesions of psoriasis.

That Kenalog is not a "cure" was demonstrated by flares of lesions following discontinuance of local medication. This same phenomena has been noted in studies of other locally applied corticoids. Relief is maintained, however, for the duration of treatment; and it is usually possible to lessen frequency of applications as symptoms subside.

Sixteen patients with *Candida albicans* infections of the genito-crural region and six patients with *Candida albicans* paronychia were treated with a cream containing 0.1 per cent Kenalog in combination with 100,000 units nystatin, 2.5 mg. neomycin sulfate, and 0.25 mg. gramicidin per gram.

Fourteen of the 16 patients with crural moniliasis were relieved of symptoms and three of the six patients with paronychia improved within three days.

SUMMARY AND CONCLUSIONS

Three hundred six patients with inflammatory allergic and non-allergic dermatoses have been treated with locally applied triamcinolone acetonide (Kenalog Squibb).

Results indicate that this new corticoid is an effective anti-inflammatory agent when applied locally in water miscible or oleaginous ointment base or lotion base, in concentration of 0.1 per cent.

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THE PHARMACOLOGIC APPROACH TO BRONCHIAL ASTHMA*†

JOHN C. KRANTZ, JR.

Toward the end of the 17th century, Sir John Floyer ascribed the difficulty in breathing of bronchial asthma to spasm of the bronchial muscles, coupled with edema of the bronchial mucous membranes and plugging of the bronchioles with mucus. His description fits well into modern medical texts. Indeed after three centuries the cause of the bronchial smooth muscle spasm is still obscure. In more recent classifications the terms *extrinsic* and *intrinsic* asthma have been frequently used. In the former, the causative factor is believed to be allergic and the incriminating agent a pollen, food, dust or some other agent to which the person is allergic. In the latter, the stimuli arise within the body, are infective in character, arising from chronic infection of the respiratory tract, periarteritis nodosa, or chronic sinusitis.

For more than two centuries, the treatment of the disease with drugs remained empirical. It was based entirely on the trial and error of clinical observation. The drugs belladonna, stramonium, and hyoscyamus became the drugs of choice in the treatment of the disease. The asthma cigarette and powder depended upon these agents. With the isolation of the principal alkaloid of these vegetable drugs, namely atropine, this agent parenterally took precedence over the crude vegetable drugs. When the autonomic system was better understood and the pathways of the vagus nerve delineated, it was observed that the vagus sends fibers to the bronchial musculature. These when stimulated caused bronchial constriction and the secretion of mucus. Atropine was shown to block this action. Hence its use in asthma was established on a rational basis. Through the classical studies of the Nobel Prize Laureate, Otto Loewi, and others it was shown that the stimulation of the vagal fibers to the bronchi causes the release of acetylcholine in the effector cells in the smooth musculature, and further, that it was the release of acetylcholine which was responsible for bronchial constriction and mucus secretion. The molecule of atropine by virtue of its prosthetic groups appears to exert a kind of "umbrella" protection effective over the receptors in the cells, and blocks with specificity the prosthetic groups in the acetylcholine molecule.

At the turn of the century, Professor John J. Abel of the Johns Hopkins Medical School isolated the first hormone from the adrenal medulla, namely, epinephrine. It was soon recognized that this agent produced upon injection many profound pharmacologic responses. Among these was a dilatation of the bronchial musculature. The action was prompt and dependable. What is more,

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tachyphylaxis did not develop. Therefore it was clear that a staunch competitor for atropine in the treatment of asthma had been established.

The sympathetic division of the autonomic nervous system innervates the bronchial musculature in a manner that is reciprocal to the vagus fibers. When these are stimulated, the bronchi dilate and tidal volume is increased. Epinephrine, and to a lesser degree norepinephrine, liberated at the effector cells in the bronchi, are responsible for this effect.

For a half century epinephrine and its analogs and homologs, collectively referred to as the sympathomimetic amines, have occupied a place of preeminence in the armamentarium for relief of asthmatic spasm.

An important advantage which the sympathetic amines offer over the cholinergic blocking agents such as atropine is that they do not cause the drying and plugging of mucus in the bronchioles. This stems from the fact that atropine not only blocks the motor component of the action of acetylcholine but also its secretory activity.

The problem of epinephrine fastness occasionally encountered in patients may be due to the release of histamine from the tissues of the host. It is sometimes obliterated by the administration of one of the antihistaminics. The recent investigations of Blumenthal (1956) have elucidated this problem. It appears to have been established by various animal experiments that the pharmacologic responses to epinephrine are diminished by lowering the pH of the medium. On the other hand, the action of acetylcholine is enhanced by lowering and decreased by increasing the pH. Blumenthal et al. studied the pharmacologic response to epinephrine in human volunteers upon intravenous injection. Changes in blood pH were achieved by carbon dioxide inhalation and hyperventilation, respectively. With the blood pH at 7.22, 0.3 ml. of epinephrine 1:20,000 produced no appreciable acceleration of the heart rate; at pH 7.60 the same dosage level nearly doubled the heart rate. These investigators are of the opinion that epinephrine fastness is due to, at least in a great part, either general or local acidosis. They recommend 120 to 150 ml. of molar sodium lactate intravenously to combat the acidosis and thus counteract the epinephrine fastness by facilitating the action of epinephrine and diminishing the response to acetylcholine.

The sympathomimetic amines which are prominently employed in asthma are epinephrine, Isuprel, Neosynephrine and ephedrine. The Isuprel linguet is very popular. Isuprel does not elevate the blood pressure, nor does it impose an additional workload on the heart without concomitant coronary dilation as does epinephrine. Besides, it does not elicit hyperglycemia, as is evoked by epinephrine.

In addition to the relaxation of the bronchial musculature caused by drugs which act through the autonomic innervation of the bronchial musculature, the xanthine alkaloids which relax smooth muscle by their direct musculotropic action have had wide use in asthma. Of the three well-known xanthine alkaloids, caffeine, theobromine and theophylline, the last mentioned is the most potent in relaxing smooth muscle and causing peripheral vasodilatation. The popular

derivative theophylline ethylenediamine or aminophylline serves well in its many dosage forms in the treatment of asthma. There are many useful modifications of the theophylline molecule.

Aminophylline is theophylline solubilized by combination with ethylenediamine. Without the latter, theophylline is capriciously absorbed from the gastrointestinal tract. If the stomach is rich in acid, aminophylline may be decomposed into its component molecules and absorption thereby diminished. The drug is absorbed fairly uniformly from rectal suppositories. However, if given in a high enema the absorption is prompt and tantamount to that achieved by an intravenous injection, namely, 0.5 to 0.75 mg. per cent. When aminophylline is used for maintenance therapy in asthma it appears that its principal function is that of bronchiolar dilatation with a minimal effect upon the edema of the bronchioles. One of the problems in aminophylline therapy is to achieve adequate dosage levels without gastric irritation. This may be accomplished, partially at least, by the use of the less irritating theophylline sodium glycinate or by the use of enteric coated aminophylline tablets.

The use of aminophylline intravenously in status asthmaticus should be enjoined with special caution as there have been so many misadventures in therapeutics with this important restorative measure. Rapid injections of aminophylline may through central vagal stimulation cause profound bradycardia or even cardiac stoppage. Slow injections, well diluted with salt solution, are safe and provide electrolyte and fluid to the patient.

The allergic component of asthma, coupled with evidence that histamine appears to be a factor in the syndrome of bronchial constriction, prompted the use of the antihistaminic drugs in the treatment of asthma. According to Derbes (1953), about 40 per cent of the asthmatics are benefited by the taking of antihistaminics. Other clinicians give a much smaller percentage. With the availability of a score or more antihistaminics, therapy with these compounds becomes a matter of tailor-fitting the drug to the patient's needs with a minimum of untoward side effects.

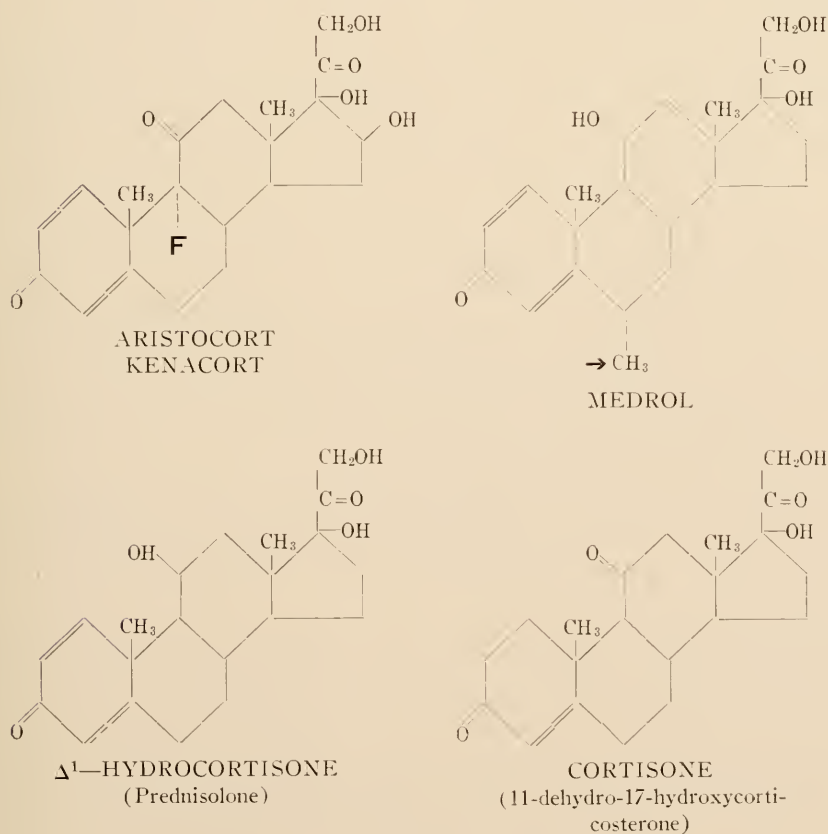
It appears from well-verified animal experimentation that the antihistaminics enter into competitive inhibition with histamine for the cell receptors in the tissues. Thus, by replacing the offending histamine, the deleterious response of the agent is blocked.

Since the wide acceptance of ACTH and cortisone as therapeutic agents, these hormonal drugs have taken an important place in asthmatic therapy. Many cases of status asthmaticus refractory to other measures have yielded dramatically to treatment with either ACTH or cortisone. The Council on Clinical Trials of Great Britain (1956) showed in a series of carefully controlled cases of status asthmaticus that the administration of cortisone plus the usual antispasmodic therapy achieved a greater degree of improvement than was obtained by antispasmodic therapy alone. However, over a three-month period of observation those in both groups reverted to their usual asthmatic condition.

ACTH owes its value to its stimulating effect upon the adrenal cortex from which it induces the secretion of the adrenal steroids. Unfortunately, it is not available for oral administration as are the corticosteroids. The long-term treatment of asthma with cortisone involves the risks of sodium retention, hypertension, peptic ulcer exacerbation and calcium loss from the osseous structures. Fortunately, the availability of Meticorten (Prednisone) has substantially reduced these hazards. This agent is 4 to 5 times more potent than cortisone, and patients may be maintained at daily dosage levels of 7.5 mg. without appreciable disturbance of electrolyte balance or other untoward side effects.

More recently two additional steroids have joined this ever-increasing family of useful drugs. These are Aristocort and Medrol. The structures of these compounds are shown in comparison with the parent molecule cortisone. These newer steroids appear to be free from the characteristic side effects of sodium retention, gastric irritation, and calcium loss from osseous structures.

COMPARATIVE CHEMICAL STRUCTURES OF NEWER AND OLDER CORTICOSTEROIDS



The mechanism by which the corticosteroids promote the relief of asthma is not clearly understood. Certain facts, however, are suggestive. The activity of the injured cell is diminished. The elaboration of LPP and leukotaxine, chemical inflammatory factors, is decreased. These steroids serve to restore to normalcy diffusion through the capillary membranes. As loss of fluid and electrolyte through the impaired capillaries in the bronchi is a source of the edematous swelling, this effect may be of marked importance in the beneficial action which they mediate. Further, the steroids stimulate tissue metabolism and cause gluconeogenesis through protein destruction. It is possible that this action might involve the destruction of the protein portion of the allergotoxin molecule. Further studies are necessary to elucidate more adequately the action of these steroids in asthma.

In asthma accompanied by infection, the antibiotics have scored their shining mark. Penicillin in its various dosage forms appears to be the most useful antibiotic in the treatment of this disease.

Penicillin has now been used for a period of 15 years. During this time it has proved itself to be one of the most useful of all therapeutic agents. It exhibits little toxicity to the animal host but kills bacteria with marked specificity. Its mechanism of antibacterial action has been the object of many researches.

It is now generally recognized that the most characteristic property of an antibiotic with respect to its antibacterial activity resides in the inhibition of metabolic functions vital to the cell. Young bacterial cells are most susceptible, whereas mature cells are more resistant to the action of the antibiotic.

1. Penicillin inhibits some metabolic function vital to the bacterial cell in appropriate concentrations.
2. Penicillin is inhibitory to the synthesis and utilization of ribonucleic acid essential to the bacterial cell.
3. The unusual sensitivity of gram-positive organisms may be attributed to the high affinity of penicillin for the ribonucleic acid of their cell wall.
4. The selective bacterial toxicity of penicillin, as demonstrated by loss of cell-wall integrity, is related to its interference in a metabolic sequence that is not found in animal cells.

If recourse is taken to the broad spectrum antibiotics, gastrointestinal disturbance may be minimized by the simultaneous use of Lactinex. These tablets contain cultures of *lactobacilli bulgaricus* and *acidophilus* and tend to change the character of the intestinal flora.

The sulfonamides should not be overlooked. Their bacterial spectrum is broad, and with Gantrisin,[®] Kynex[®] or the triple sulfonamides sensitivity reactions are minimal, and kidney tubule blockade has been eliminated.

The therapy designed to dislodge, reduce in viscosity, and expel mucus has changed little over the years. Iodides remain an important factor. The iodide ion is effective in the dissolution of mucus. But the problem in therapy is to bring the iodide ion in sufficient concentration to the impacted bronchioles. Intravenous

therapy appears to offer little advantage over oral administration. Improvement by the use of iodized oil intratracheally has not been startling. What is more, it is often fraught with severe reactions by the patient.

When iodides are given in quantities of 1 to 3 gm. daily, iodide can be demonstrated in the bronchial secretion. Whether or not it is there in sufficient quantity to cause the dissolution of mucus has not been established. It is clear, however, that if iodides are impinged upon the gastric mucosa of a cat, the bronchial secretion is increased four to five fold. This action is reflex in character for it is abolished by severance of the vagus nerve. Ipecac and ammonium chloride cause increased secretion of the bronchioles in the same manner. That this reflex action is a primitive one is shown by the fact that it is not abolished by light anesthesia. This poses the challenging clinical question of the wisdom of protecting the gastric mucosa from the irritating action of the iodide ion.

Chlorpromazine has had extensive clinical trial in the treatment of asthma with a considerable degree of success. The drug elicits anticholinergic action which is of obvious value. In moderate doses chlorpromazine depresses the cerebral cortex but not the respiratory centers. Ende (1955) used the drug intramuscularly in doses of 25 to 50 mg. in severe asthma. Improvement was usually noted within an hour after the injection. The anxiety complex of the paroxysms is mitigated by chlorpromazine, and its hypnotic action often affords sound sleep.

The use of sedatives and tranquilizing drugs has found a definite place in asthma therapy. These range from the time-honored phenobarbital to ethyl alcohol by vein and ether-in-oil rectally. Demerol is a favorite sedative in asthma. But it poses the hazard of addiction. Of the various tranquilizing drugs used to treat the emotional disturbance caused by asthma, meprobamate appears to be the drug of choice. There are no interfering autonomic components involved in its tranquilizing action. In the main, meprobamate achieves tranquility by its capacity to block selectively interneuronal circuits (thalamocortical and corticothalamic) and to the reduction of exaggerated reflexes of the usual magnitude (Berger, 1954, et seq.). The relaxation of skeletal muscle is an additional component of the action of meprobamate; this it shares with mephensin.

This brief summary of some of the pharmacologic attacks on this multifaceted disease, asthma, indicates that definite strides have been made. But more emphatically, it points out that much room for improvement remains and rational therapy in the treatment of asthma is still in its incipency.

DR. NATHANIEL POTTER WROTE A BOOK

CLEWELL HOWELL, M.D.

The other day I found a book in a library out in Baltimore County. It was not a new book. In fact, it was written in 1818 by one of the founders of the University of Maryland Medical School, Dr. Nathaniel Potter. It is entitled: "A Memoir on Contagion, more especially as it respects Yellow Fever". And on the front page the author has added: "Sold for the benefit of the Faculty". In that last phrase lies a story to which I will refer later.

As far as I know, Dr. Potter's book has no particular value as a collector's item. The subject matter is hopelessly out of date, but, to any medical man with a little imagination, it contains the germ of any number of fascinating speculations. With this book as a sort of text and starting point, I ask your indulgence while I emulate Stephen Leacock's famous character, and "jumping on my horse, ride off in all directions".

It has always seemed to me that a taste for old books and incunabula, like a taste for truffles or cubist paintings, is an acquired one and limited to a few epicures. Still I am inclined to think that few graduates of the University of Maryland Medical School, or even native Baltimoreans, could fail to have their interest aroused by this little old gray book. The Baltimoreans would be intrigued by references to their city as it was a hundred years ago, and the medical men by the picture given of the medical practice of the time. They would also be struck by the keen reasoning Dr. Potter displayed, and the completely false conclusions he reached because he lacked the essential clues to the solution of the problem he was discussing.

Whether we have taken the trouble to learn anything of the past of the Medical School or not, all of us who graduated there have sat in the very same amphitheatres, and on the same seats, where medical students a hundred years ago sat and listened to Dr. Potter. Listened while Dr. Potter, in a frock coat, with the courtly gestures and flowery speech characteristic of his age, expounded his theories on yellow fever. The spirits of the men who founded the school were all around us, and their names were often mentioned, but only as vague and legendary figures of ancient history. However, when one picks up this book, it does not require much effort of the imagination to go back and live among these men: to walk the muddy streets of old Baltimore with them, and to watch as they worked and fought to build our school of medicine—the same school whose corridors today seem so old and mellow.

The early story of the University of Maryland is not widely known. In fact, I could only find two accounts of it. One was a sketch written by Potter himself, and the other a history written by Dr. E. F. Cordell in 1891. Dr. Cordell makes the interesting comment that the press of those days was almost utterly indifferent to local happenings, ignoring them in large measure, and filling the newspaper columns with politics and advertising.

Baltimore apparently did not amount to much before the Revolution, and at the close of the war the city had a population of only about eight thousand. Almost immediately thereafter the city began to grow and develop very rapidly. A number of

physicians settled here at that time, and several of them became very prominent in the affairs of the community. At that time, of course, there were no real restrictions on the practice of medicine. Anyone who liked could hang out a shingle and call himself a physician. The majority of practitioners got their education and start by going into the office of another physician for a few months, watching him work and reading the few books that comprised his medical library. Then they would hang out their own shingles.



DR. NATHANIEL POTTER

The more intelligent and better trained men were not satisfied with this situation, however, and by 1785 petitions began to be presented to the Legislature, requesting it to improve the quality of medical practice by creating a Board of Medical Examiners, who would license only those physicians who were actually qualified to practice medicine. In 1789 a number of physicians got together and organized the Medical Society of Baltimore, also with the idea of improving the quality of medical practice.

As part of that idea, two or three of the members of the Medical Society began to give lectures to private groups of students on medical subjects. They attempted to give lectures on anatomy, and procured the body of a criminal, who had been executed, to dissect. However, the populace of the city had other ideas. A mob gathered and proceeded to take away the body and rip up the place. So that finished that. The proposed school very quietly passed out of the picture.

In 1796, the year the city of Baltimore was incorporated, two young physicians came to town. One was Dr. John Beale Davidge, and the other was Dr. Nathaniel Potter. Both of them seem to have been interested from the start in the idea of founding a medical school in the city, and they frequently discussed the matter. But they were unable to find others who were, as they said, "willing to embark in an enterprise so inauspicious and problematical". Davidge persisted, however, giving a few private lectures, and gradually interesting two or three other young physicians, all of whom, Potter commented in his account, had "as yet ample leisure".

In the Fall of 1807 these men all got together and actually began to lecture. This was the beginning of the University of Maryland. They had no money, of course, and no place to teach but their homes, but Davidge did erect on his own ground a small building to be used for an anatomic theatre. A subject for dissection was again procured, but its presence in the building became known, and a crowd of boys gathered in front of the door. Soon this increased to a noisy mob, who proceeded to demolish the building and destroy its contents. The comment is made that so much prejudice existed against dissection in the public mind at that period that little sympathy was felt in the community for the doctor's loss.

But this time the result of the mob action was different. Instead of stopping the whole project as before, the action of the mob had the effect of rallying to the support of the school the medical profession of the town and several of its prominent citizens. Davidge and his associates held a meeting and resolved to apply to the State Legislature for legal protection and a charter for the school. This was done successfully. The school which was thus formed was named "The College of Medicine of Maryland," and was put under the charge of our old friends the professors of the college, and the newly created Board of Medical Examiners.

At this time there were only four other medical schools in the country: the University of Pennsylvania, Harvard, Dartmouth and the College of Physicians and Surgeons of New York, which had been started about six months previously.

By this time, in the Fall of the year 1807, the population of Baltimore had grown to 33,000 souls. The city extended to the north away up to Colonel John Eager Howard's country estate, which is now the site of Washington's Monument. It extended west as far as Greene Street. South it ran three or four blocks below Baltimore Street to the wharves. And on the east it extended almost to Jones' Falls, which was then an open stream surrounded by low marshy meadows. Commerce was active, and the whole city was very much alive and wide awake.

In this atmosphere the new college began its career. None of the physicians in charge had any money, but they managed to pick up a dilapidated building out on Fayette Street, and there they began to teach and to work. After about four years, in 1812, the college began to cast about for suitable quarters, and especially for the money with which to build them. The regents of the college, including our old friends Davidge and Potter, were about as wealthy as the average doctor is today. But they borrowed some money from banks (personally signing the notes) and begged some from individuals. They also petitioned the Legislature for the right to conduct a

lottery, for the purpose of raising further funds. (Of course at that time lotteries were a favorite means of raising money, and many of Baltimore's first public buildings were built in that manner.) The most prominent men of the city undertook to act as agents for this lottery; but as far as I can learn, the project did not work out and the funds they secured were chiefly money which they borrowed on their personal notes. Colonel Howard sold them for a nominal fund the lot on the corner of Greene and Lombard Streets. Mr. R. C. Long drew up the plans for the building, and finally there was erected the classical Pantheon which is still used by the medical school, and which is the nucleus of the present University.

All of you know this building and its location. It is interesting to read the description of it at that time. It was said to be "The finest structure devoted to medical education in the new world, and not inferior to any in the old". This was probably true. The lecture hall was said to contain seats for twelve hundred persons, and the chemical hall below could seat a thousand. The building was one of the most conspicuous objects in the city, stood almost alone on the extreme western boundary of the city, and was said to command an extensive prospect along the Patapsco and the Chesapeake. Imagine that now!

There had been considerable agitation in Maryland for some time to have a university here, and soon after the new medical school building was put up, the faculty "with certain other citizens" petitioned the Legislature to allow them a charter for a university, with the medical college as a nucleus. This request was granted, and in 1812 the University of Maryland was begun in name and actuality.

It is worthwhile stopping to glance at the whole make-up of the new University. The charter called for Schools of Divinity, Arts and Sciences, Law and Medicine. Each school was to be run by its own faculty, and the faculties of all were to compose a general Board of Regents, who were to govern the whole. The University was a strictly private affair, although it got its moral backing from both the State and from private individuals. The School of Medicine was the strongest school, and has continued so until the present day. It is the only school which has had an uninterrupted existence.

The School of Divinity was to be taught by several of the prominent Protestant clergymen of the city. But as might have been expected, there were too many differences of opinion among these gentlemen. The school never thrived and in a short time was quietly dissolved. The School of Arts and Sciences never even got started as planned; and the University never had an undergraduate department until the comparatively recent combination with the State Agricultural College at College Park. The Law School hibernated until after the Civil War, but since then has developed into a very worth-while institution.

For about fifteen years after its beginning the Medical School struggled under a heavy burden of debt, working and fighting for existence. It is significant that this book of Potter's, written during this period, was "published for the benefit of the Faculty". The buildings were in disrepair, the students were few, and even the professors were constantly squabbling with one another.

Largely as a result of this squabbling, another era in the life of the university began in 1826. At that time certain factions among the faculty began to lobby in the State Senate for a State-controlled university. Remember that the University was originally started by a private group of men, that its buildings were erected by them largely out of their own purses, and that most of them still were responsible for notes for large sums of money used in running the University. Upon the proceeds of the University they depended for recovering the sums they had invested, and for part, at least, of their livelihood. The University had been chartered to them as a group by the Legislature "in perpetuity".

The Legislature now proceeded (in 1826) to pass an Act which, in essence, took away from them the control of the University, placing it instead in the hands of a group of Trustees appointed by the politicians. Adding insult to injury, the edict not only made no provision for the reimbursement to the physicians of the money they had spent, but expressly declared that the faculty were not to be relieved from paying the interest on a large loan which still stood against the school!

The faculty naturally did not sit quiet under this ruling, but protested vigorously this invasion of their rights. However, there seemed to be little that they could do about it. They did consult constitutional authorities, including the Attorney-General of the United States and Daniel Webster, who informed them that the action of the Legislature was clearly illegal. Since none of the faculty had much money, and since its members were dependent upon their lectures for part of their living, and since the new Board of Trustees had the backing of State authority and State funds, they felt that it would be unwise or impossible to fight the matter through the long and expensive court proceedings which would be necessary to regain their old position. Hence they let the matter drop for the time, and went on with their teaching.

Professor Potter, however, was a fighter and a die-hard of the toughest caliber, and he apparently was never reconciled to this decision. To the very end of his life, he never let an opportunity go by to take a crack at the Trustees he so ardently disliked. Time after time there are, in the records, accounts of clashes between them. For example, on one occasion, when the professors got on the nerves of the Trustees to an unusual extent, the Trustees supposedly passed a resolution declaring that, if any of the professors should speak disrespectfully of the acts of the Trustees, they should forfeit their chairs and be expelled from them. Old Professor Potter very promptly and publicly replied that, if they would let him appear before their Board, he would give them an opportunity to resort to this further act of tyranny! Professor Potter kept his chair.

In 1839 this continual struggle did finally reach the courts, which decided in favor of the old faculty; and the Legislature withdrew the illegal charter, and restored the University to the control of its original founders. From then on, the Medical School has had a comparatively uninterrupted career. I wish I had time to go into more details about the early days of its history. In its annals are the names of many of the most prominent citizens of the city of that day: names many of you would know. There were duels fought at the school at that time. Two or

three of the early teachers died of over-exposure in the first crude class-rooms. And many other details of the school's early struggles are well worth the reading.

And through it all strode Dr. Nathaniel Potter! Strangely enough, I don't think any biography of him has ever been written. Yet he was one of the little group of two or three who started the school, and he stayed with it until it became one of the most prominent and prosperous medical schools of the country. Every other man whose name appears in those early annals either quit under fire, or wavered in his loyalty to the school at one time or another. Potter seems never to have faltered an instant in his unswerving devotion to its cause. Nothing shook him, and, as far as I can judge, to him more than to any other man the University owes its existence today. He was a fighter, and showed his courage in many ways. He was the leader in the battle during the period when the State had illegally taken over the School; and he never hesitated to differ with his professional brethern about their medical beliefs. In his "Memoir on Contagion", which I will discuss more fully later, Potter takes a point of view which had been laughed to scorn by the whole medical world. He stated his belief that yellow fever was non-contagious, and he had the courage to attempt to prove it by experimenting on himself. Incidentally, he was more nearly right than were his opponents. He never hesitated to use methods of treatment which were totally at variance with the customs of his time, and his fame as a physician was said to be national.

He was reputed to be a most able lecturer, and he was very popular with his students. Cordell says that he was fond of varying his lectures with anecdotes that "brought down the house". When his stories got too tall for even the students to stand they would, as we say, "give him the razzberry". Then it is recorded that the old professor would retort: "I'm damned, gentlemen, if it ain't so!"

He was a native Marylander, having been born at Easton in 1770. He was educated in the medical school at the University of Pennsylvania, and then came to Baltimore, where he practiced medicine and taught until his death at the age of 73. Now, apparently, he is on his way to oblivion, buried in an unmarked grave, in spite of his eminent professional attainments, and his vital services to the University of Maryland.

This book of his, the "Memoir on Contagion", was written to develop the thesis that yellow fever is not contagious, but comes instead from the effects of poisonous gases, generated by decaying animal matter in the heat of the summer—or, as he expresses it, from "noxious effluvia emanating from putrefaction". This, of course, means nothing to us today. Both the theories and the words have passed from medical terminology.

His thesis has only an historic medical interest now, but in his day this was a subject which was a very vital one, and which was good for a heated debate on any occasion. It is, therefore, not his actual thesis that concerns us as much as the way in which he presents it, and the background of his book. In his book he attempted to prove, by elaborate philosophic argument and extensive quoting of the authorities, that yellow fever was not contagious, and that, therefore, the strict quarantine

measures which were in force at the time, and which were restricting foreign commerce, should be abolished.

This was a daring position for him to take. All of his contemporaries were sure that yellow fever *was* contagious. We now know, of course, that each side was half right and half wrong. Yellow fever is not contagious in the sense that it is communicated by direct contact; but for all practical purposes it is contagious, since it is passed from patient to patient by the bite of the mosquito. Consequently, those who favored strict quarantine had the right point of view, although it was based on incorrect theory.

It seems odd to us that a physician whose time was so completely taken up by teaching and private practice should display so much concern over the commerce of the world. Half of his book is given over to detailed quotations of quarantine regulations in various countries; and he reaches the heights of his indignation when he discusses what, to him, were the follies of these restrictions. I remember one curious thing. He waxed very sarcastic over the fact that the laws attempted to quarantine every known disease except the one disease—smallpox—which had again and again been proved to be contagious.

He writes in the formal, ornate style characteristic of his day, and he uses quaint spelling and archaic words. His is quite an elaborate thesis, plentifully sprinkled with poetry and with Greek and Latin quotations; and it reveals a wide background of general reading. I could not help wondering, as I read through the book, how many physicians of today could duplicate his wide range of knowledge and his general culture. I have a notion they would be hard to find. Classical education is not as much in style as it once was; and the recent tremendous growth of medical knowledge makes it almost impossible for one man to keep abreast of it alone. If the average physician takes in all he should of the medical advances of his day, he has little time for a leisurely perusal of the classics.

I was interested in the way in which Dr. Potter went about proving his thesis. His is so different from the modern method. Today, ours is a rigid method of investigation, and of the checking and re-checking of experimental evidence. Dr. Potter depended to a great extent on logic, and on argument based on logic, and his experimenting was only incidental. He based most of his evidence on extensive quotations from accounts of other epidemics in all parts of the world.

It is queer about those quotations. Every one of them reveals the truth to us, who are now in possession of the key to the mystery. Then they formed the basis for many conflicting and fantastic theories. Remember that yellow fever is transmitted from person to person by the bite of a mosquito. Malaria is similarly carried. Typhus is transmitted by the bite of the body louse, and bubonic plague by rat fleas. In Dr. Potter's day these diseases were often confused, and most of the accounts of epidemics made little attempt to differentiate between them. It is probable, though, that when Dr. Potter refers to yellow fever in other countries, it was actually either yellow fever or malaria, which also turns patients yellowish, and which is also carried by mosquitoes.

Listen to this description of what was called "the bilious pestilential epidemic that ravaged Rome in 1695". "The record makes the explicit declaration that 'The fever was limited to those parts of the city that were built on factitious materials, like the artificial grounds of our cities at this day', and declares that 'the hills, only a few paces distant, were exempt from the disease'. The writer finishes his description of this mortal fever by expressing his astonishment that so short a distance could have made so essential a difference in the air. He ascribes the disease solely to 'the effluvia extricated from the low grounds, acted upon by the unusual heat'." That, too, was Dr. Potter's idea. (You can fairly see the mosquitoes breeding in the marsh, buzzing and biting in the lowlands, and being blown off the hills by the breeze!)

Here is another quotation: "Bartholine describes a malignant fever that wore the very features of the yellow fever of our country. One that struck a panic through the city of Copenhagen in 1652, and caused it to be deserted. He does not ascribe it to any extraneous source, but refers it to putrefaction occasioned by uncommon heat, 'to something rotten in the state of Denmark'. His description concludes with this emphatic expression: 'Its mortality was arrested only by the frost'." There it was again: the mosquitoes biting until killed by frost.

Time and time again the descriptions of various epidemics ended with that same phrase: "The disease was arrested by the frost".

Dr. Potter cites one of his own experiences: an experience that to us shows plainly the hidden key. He says that he was called out to a family on the old York Road, "about three miles north of Baltimore". This was in the country then, but probably in the Govans section now. He says that the house stood on a level "apparently beyond the reach of noxious exhalations, as there were supposed to be no stagnant waters within a mile of it". He found the whole family ill with the fever; and two or three of them died, so he determined to investigate. "I found that the family had occupied the house only about five weeks and that, immediately preceding, a man had died suddenly in it. This led me to a minute examination of the premises. The cause was manifest. The cellar contained water about two feet deep, which had remained there since the severe rains, three months previously. The cellar being useless, the door had been closed, and the only vent for the pestiferous gases was through the floor, which was open in several places. At my solicitation the family was immediately removed, and all convalesced from the time they ceased to breathe the air of the place. But the tragedy did not end there. The owner of the house, anxious to retrieve its character, hired two men to empty the cellar. They executed this nauseous task in one day, but shortly after they, too, became ill and died with the usual symptoms of yellow fever." To Dr. Potter, that was proof enough that the poisonous gases were responsible.

Since Dr. Potter's day, of course, the microscopic world has been discovered, and the study of medicine has been revolutionized. The ancient plagues are now largely medical curiosities. A little over a hundred years ago, when Potter wrote his little book, such a possibility was undreamed of. Smallpox, cholera, typhoid, bubonic plague and dozens of other infections were rampant. Today they are almost com-

pletely wiped out. The older physicians active today have seen, in their own lifetimes, the character of their practices completely change, and the old infections dwindle to almost nothing. The young physician is lucky to see even one of the infections that made up the bulk of his grandfather's practice. Only the respiratory group is left to plague us.

Dr. Potter waxed very scornful over certain ideas that "persist even to our day." He obviously was satisfied that medicine in his day was in its prime. We look back on his times and are inclined to be equally scornful of the knowledge of his day, and equally convinced that most of the fundamental facts of medicine are known. Yet in the year 2018 medicine will surely be very different from the science it is today. Certainly the illnesses that our grandchildren experience will not be the ones we are called upon to treat, any more than our medical problems are those that Dr. Potter confronted.

And what will the commentator of a hundred years from now have to say about the books which we write today?

OBSTETRIC CASE STUDY*

EUGENE SHERMAN, M.D.

Mrs. L.E.S., a 31-year-old gravida IV, para III, was first seen in the obstetric clinic April 1, 1958, as a new patient.

Her past and family history were not significant. Her previous pregnancies, which were distributed over the last 7 years, resulted in three vaginal deliveries. The weights of the three children at birth were $8\frac{1}{2}$, 9 and $9\frac{1}{2}$ lbs., respectively, and the last was a stillbirth. The mother did not know the reason for the fetal death.

At the time of the initial obstetric examination, the patient was felt to have an adequate pelvis and the findings were consistent with an intrauterine pregnancy of twelve weeks' duration. The physical examination was essentially negative.

In view of the history of large-sized babies and a fetal death, diabetes mellitus was considered. Glucose tolerance studies were done and found to substantiate a diagnosis of mild diabetes mellitus. The disease was controlled with a diabetic diet during her prenatal course.

At 36 weeks of gestation, the fetus was estimated to be seven and one-half pounds, a vertex presentation, and dipping into the pelvic inlet. It was felt that the patient should be delivered at this time with a medical induction, and she was admitted to the obstetric floor. A medical induction with Pitocin® failed and she was delivered of a viable seven pound, eight-ounce male infant by cesarean section. The mother had an uneventful post-operative course and was discharged with her baby. Future follow-ups were conducted at the medical, obstetric, and pediatric clinics.

DISCUSSION

This case illustrates several points of interest. First, the diagnosis of diabetes mellitus should be entertained with a history of excessive-sized infants or a history of a stillbirth. Secondly, the severity of diabetes mellitus does not necessarily reflect the prognosis of the fetus. Thirdly, by experience and substantiated statistics the optimal time for delivery of a diabetic mother is 36-7 weeks, provided the fetus is estimated to weigh over 3000 gms., since gestation dates are often nebulous. In conclusion, medical evaluation and follow-up of a diabetic patient is a necessity and the infant should be carefully checked by the pediatrician. If the diagnosis of diabetes mellitus is not kept in mind, it may cause the death of a fetus and endanger the life of the mother.

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RHEUMATIC FEVER A REVIEW OF THE LITERATURE

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I

ETIOLOGY AND PATHOGENESIS

During the past thirty years, it has become evident that hemolytic streptococcal infection is related to the development of the rheumatic state. In 1930, Schlesinger (1) noted that the explosive onset of carditis or arthritis follows streptococcal infection, especially of the respiratory tract, after a latent or quiescent period. The length of this period varies from one to two weeks and has been termed phase II by Coburn (2).

Phase I of streptococcal infection is acute, and is characterized by fever, constitutional symptoms, and to those susceptible to the erythrogenic toxin, a rash. This phase lasts from three to seven days. Following the latent period, the patient may or may not present symptoms and signs of illness, but if they occur, they are entirely different from those observed in the primary infection. These diseases have been collectively termed the late non-suppurative complications of hemolytic streptococcal infections. We shall be concerned in this paper with one of these non-suppurative complications: namely, rheumatic fever.

In addition to being causally related to rheumatic fever in some way in the initial episode, Coburn (2) was one of the first to recognize the fact that recrudescences of rheumatic activity appear when persons who have undergone previous attacks of rheumatic fever are reinfected by hemolytic streptococci. These recurrences did not appear to be diminished in intensity by the amount of time which had elapsed from the first rheumatic episode.

The desire to learn the mechanism by which hemolytic streptococci could produce late non-suppurative diseases was aided by the advent of immunologic techniques by which it was demonstrated that the disease process was based on antigen-antibody reactions. As early as 1932, Coburn and Pauli (3) demonstrated high titers of various anti-streptococcus antibodies, as well as cutaneous hypersensitivity to products and fractions of hemolytic streptococci in persons suffer-

ing from acute rheumatic fever or from recurrences of this disease. From this time, the literature has been replete with reports of refinements of early immunologic techniques. Reports of the significance of antihemolysin and antifibrinolysin titers; specific anti-M precipitins and cutaneous responses to type-specific proteins of the hemolytic streptococcus are but a few of the major immunologic contributions that appeared.

World War II provided an opportunity to conduct detailed studies on large groups of persons in whom hemolytic streptococcus infections of the respiratory tract had occurred, and for determining the natural history of such infections and their relationship to the rheumatic state. Such a study had rarely been possible in civilian population due to the intensive, long-term follow-up that had to be undertaken in order to arrive at valid statistics.

This work was carried out by Rantz et al. (4) in an army camp in an area in which streptococcal respiratory disease and rheumatic fever were prevalent. From January 1 to April 15, 1944, approximately 1500 patients were observed. Group "A" hemolytic streptococcus was not isolated from 871 patients, whose disease process was regarded as definitely non-streptococcal in origin. Four hundred and ten were considered to be infected by the organism on the basis of positive bacteriologic and physical evidence. Rheumatic fever occurred in 15, or 3.6 per cent, of these 410 men.

No serologic type of hemolytic streptococcus appeared to be more likely than others to incite the rheumatic state and there was a wide variety in severity of the preceding respiratory tract infection. The authors found evidence to refute the concept that there is a latent period of one to two weeks during which the patient is clinically well. Evidence of continued activity of a disease process for 14 to 40 days, during the so-called latent period, was obtained in nine of the patients. In each case, the erythrocyte sedimentation rate remained above 30 millimeters per hour. In the uncomplicated cases of hemolytic streptococcal sore throat the erythrocyte sedimentation rate (ESR) returned to normal within two or three weeks.

Also of considerable interest was electrocardiographic evidence of carditis several days to weeks before the development of arthritis. These observations led the authors to believe that certain phases of the rheumatic state are initiated soon after the onset of the respiratory infection and that the concept of a latent period is, in part, erroneous.

There was increased frequency of non-suppurative disorders in patients in whom evidence of reinfection by a new type of hemolytic streptococcus was demonstrated. The statistics showed that 12 cases were reinfected by one or more types of streptococci. In three (or 25 per cent), rheumatic fever developed. In four (or 35 per cent), there was a severe, clinically evident, continuing disease. Therefore, serious late complications occurred in 60 per cent of this small group of patients.

The cases studied revealed different manifestations of poststreptococcal disease. In some patients there was a prolonged tissue reaction as measured by serial ESR and without subjective symptoms; in the others, this finding was accompanied by fever, loss of weight, malaise, and other signs of active disease.

In another group of patients there was electrocardiographic evidence of carditis without arthritis, and the fourth group consisted of patients with evidence of tissue reaction: arthralgia, arthritis, and pancarditis; that is, the classical aspects of acute rheumatic fever. However, it is to be recognized that the other three groups, although they may not be classified as rheumatic fever patients, must be recognized and treated adequately to prevent acute exacerbation of the rheumatic process by a future hemolytic streptococcal respiratory infection. It is, therefore, well to think in terms of the "poststreptococcal state." In this classification may be included rheumatic fever, postscarlatinal arthritis, and atypical rheumatic fever.

Schlesinger (1) has presented the most widely accepted explanation of the mechanism involved in the development of poststreptococcal disease. He believes, as do most other investigators, that the products of hemolytic streptococci are distributed throughout the body at the time of acute infection and become "fixed" in various tissues. Later, as antibodies develop as a result of the infection, an antigen-antibody reaction occurs on the cell surfaces, creating in an unknown way the non-suppurative complications described clinically above.

The fact that rheumatic fever rarely occurs in children under three years of age, although streptococcal infection is exceedingly common in that age group, adds weight to the hypothesis that repeated infection by hemolytic streptococci may be necessary for the development of rheumatic fever (1).

Bearg (5) and his associates have stressed the fact that the tissue reaction to streptococcal infection is altered by the initial infection in children. There seems to be little evidence for the view of Swift (6) and others that chronic streptococcal infection, based on faulty immunity, is essential to the development of tissue hypersensitivity.

In 1943, Rich and Gregory (7) questioned the antigen-antibody theory by producing microscopic lesions similar to that observed in rheumatic fever by inducing serum sickness in rabbits. The hypothesis which has evolved from this and similar reports is an attractive one. It is supposed that the tissues of patients affected with late complications have been sensitized by antibodies to some fraction or product of the hemolytic streptococcus. Subsequent infection would find the tissues in a hyperreactive state and the syndromes of the poststreptococcal state could be established.

This hypothesis would explain the finding of carditis early in the latent period, and the explosive appearance of arthritis 24 to 48 hours after the last of repeated streptococcal infections of the respiratory tract.

Rantz et al. (4) emphasize that in their study, the arthritic phase of the post-streptococcic state is a special reaction based on an extreme hypersensitivity often associated with repeated reinfection. This may do much to explain the discrepancies between the reported incidence of chronic rheumatic heart disease and clinical rheumatic fever. Reinfection may occur on enough occasions to excite the development of heart disease but not of arthritis.

In 1954, Catanzaro (8) et al. withheld penicillin therapy until the convalescent phase of the streptococcal disease was well advanced and found that it was still possible to prevent rheumatic fever without suppressing significantly the anti-streptolysin response. If the (ASO) response can be regarded as indicative of the total antibody response to streptococcal antigens, it may be presumed that the immune response is not of primary importance in the pathogenesis of rheumatic fever. In their cases, it is obvious that the prevention of rheumatic fever by penicillin is not related in any direct or essential fashion to the suppression of the immune response ordinarily seen.

Their data strongly suggests that the development of rheumatic fever requires the presence of living streptococci throughout convalescence. This supports the finding of Rantz et al. (4) and is in accord with the concept that hypersensitivity of the "delayed" or tuberculin type is involved (9).

The concept that rheumatic fever begins as a disease entity during the acute streptococcal infection, with clinical manifestations two to three weeks later, is not tenable according to these studies, since ample time was allowed for the acute pharyngitis to progress without interference until a time when the rheumatic process should have already been initiated.

It is evident that there is much which is not known about the etiology and pathogenesis of rheumatic fever. Progress will probably come from further investigations concerning the nature of the bacterium and the human cellular reaction to the organism and their products. The extensive work that has been done on the Group "A" streptococcus and its relation to the rheumatic state promises to pay dividends in future elucidation of this and other hypersensitivity disease states about which less is known.

II

DIAGNOSIS

A. Clinical

Rheumatic fever remains one of the many diseases for which there is no pathognomonic laboratory test, and in which the chief factor in diagnosis is the clinical skill of the physician. In 1944, Jones published criteria for the clinical diagnosis of rheumatic fever. The criteria have been modified by a Committee of the American Heart Association (10) and are of value in identifying those individuals who have had, or are having, an attack of rheumatic fever. The

symptoms and signs of rheumatic fever are divided into major and minor manifestations. The presence of one major and two minor criteria indicates a high probability of rheumatic fever.

I MAJOR DIAGNOSTIC CRITERIA

- a) Carditis
 - 1. murmur
 - 2. increasing cardiac enlargement
 - 3. pericarditis
 - 4. congestive failure
- b) Polyarthritits
- c) Chorea
- d) Subcutaneous Nodules
- e) Erythema Marginatum

II MINOR DIAGNOSTIC CRITERIA

- a) Fever
- b) Arthralgia
- c) Prolonged P-R Interval in EKG
- d) Increased ESR; Presence of C-Reactive Protein or Leukocytosis
- e) Evidence of Preceding Beta Hemolytic Streptococcal Infection
- f) Previous History of Rheumatic Fever or the Presence of Inactive Rheumatic Heart Disease

As is pointed out by McEwen (11), another reliable diagnostic aid is the therapeutic response to salicylates. He points out that the diagnostic feature is the effect on the joints rather than on the fever, and that an acute onset of rheumatoid arthritis may respond, for the first few weeks, just as dramatically as the polyarthritits of rheumatic fever.

According to Saslaw (12), "carditis is probably present universally in rheumatic fever." In the earliest stages of rheumatic fever the commonest murmur is a soft apical systolic one. This is difficult to interpret and may defy final evaluation for weeks to months. It must be kept in mind that such an abnormality may be an innocent murmur not previously recorded, or may represent a temporary dilation of the mitral valve ring, such as commonly occurs in any febrile illness.

A. Carditis

The American Heart Association further describes the murmurs that are indicative of carditis:

1. Significant apical systolic murmur. This murmur is long, filling most of systole; is heard best at the apex; is transmitted to the axilla and over the precordium; and does not change with position or respiration. An innocent murmur, often heard in normal people, is distinguished by the fact that, although systolic and occasionally harsh, it is heard best along the left sternal border, and usually changes with position and respiration.
2. Apical mid-diastolic murmur. This murmur often accompanies a significant organic apical systolic murmur. It is low-pitched and short and is sharply localized to the chest wall over the apex of the heart. It is heard best in the left lateral position with the breath held in expiration. Its presence confirms the significance of an apical systolic murmur. It must be differentiated from the long, low-pitched crescendo apical pre-systolic

murmur, followed by an accentuated mitral first sound, which is characteristic of mitral stenosis, but not of acute carditis.

3. Basal diastolic murmur. This is an early, short, diminuendo murmur, heard best along the left sternal border in deep expiration. It is of great diagnostic value, even though it may be difficult to hear and present only intermittently.

It is often difficult to judge whether a particular murmur is the result of ventricular dilation, acute inflammation of the valvular leaflets, or valvular scarring. In the first instance, the murmur is caused by myocarditis; in the second, by active endocarditis; in the third, by healing or healed endocarditis. In an effort to cast further light on diagnosis of the stage of the pathologic process auscultatory, electrocardiographic, and phonocardiographic studies have been made (13, 14).

In the latter series, 41 patients between the ages of two and fifteen were studied. All patients were in their first rheumatic attack when first examined, and were followed for a period varying from several weeks to three years. The evolution of the murmurs in phonocardiographic tracings led to division of the patients into four groups:

GROUP I *Systolic Murmur Present at the First Observation*

This group included 20 cases. The murmur was apical only in 20; also pulmonic in 19, and also aortic in 18. A comparative study revealed that whenever there was a systolic murmur in decrescendo over the pulmonic or aortic area, it was transmitted from the apex.

GROUP II *Diastolic Apical Murmur Plus Various Systolic Murmurs Present at the First Observation*

This group included 13 cases. The systolic murmur was only apical in 13; also pulmonic or aortic in 11.

GROUP III *Apical Systolic and Aortic Diastolic Murmurs Present at the First Observation*

Four cases manifested these findings. The systolic murmur was also present over the pulmonic and aortic areas.

GROUP IV *Minimal Systolic Murmurs Either Diffuse or Localized*

There were four patients in this group; all of whom had negative electrocardiograms at the beginning and end of the period of observation.

In Group I all patients had a mitral regurgitant murmur. About one-third of the basal murmurs were transmitted from the apex, a fact which is more common in children than adults. At the end of the observation period, the apical

systolic murmur had decreased or disappeared in one-half of the cases, and had increased in the other half. The authors believe that the apical systolic murmur was the result of dilatation of the mitral ring or stretching of the papillary muscles caused by carditis (relative mitral insufficiency). That observed after disappearance of rheumatic activity was due to organic, already established, mitral insufficiency.

Luisada and Magri (13) found that a pulmonic systolic murmur of local origin is more common in early than in later stages of rheumatic activity. This was explained in two ways: that is, dynamic dilatation of the pulmonary artery (fever, increased pulmonic pressure or flow), or organic dilatation of this vessel (rheumatic arteritis). In Zilli and Gamna's series (14), a pulmonic systolic murmur not transmitted from the apex was present in about one-half the cases at the beginning, and in one-fourth the cases at the end, which confirms the former impression.

An aortic systolic murmur, not transmitted from the apex, was present in about one-fifth of the cases, both at the beginning and at the end. This is evidence of organic stenosis of the aortic valve which started early in the disease.

A triple rhythm (gallop rhythm) was present in one-half the cases in the beginning and one-third at the end. It is the result of carditis and is frequently mistaken upon auscultation for a mid-diastolic murmur. The connection between tachycardia, ventricular strain and triple rhythm is discussed at length in its relation to gallop by Taguini (15) and his co-workers, who also utilized phonocardiograms in the study of early rheumatic heart disease in 1940.

The diastolic rumble which accompanied the systolic murmur in Group II patients disappeared in two-thirds of the cases.

Most physicians have come to rely on the electrocardiogram as one of the most important tools in the evaluation of heart involvement. The prolongation of the P-R interval is considered to be a minor criterion, since it is nonspecific and is not diagnostic of carditis. It cannot be used as a minor criterion if carditis is already included as a major manifestation. According to Burch and Windsor (16), daily electrocardiograms in acute rheumatic myocarditis may show rapid changes as the intensity of the inflammation of the heart increases or decreases. All the components of the EKG can undergo changes.

If an acute inflammatory process involves the epicardium, the pattern of acute pericarditis with elevation of the S-T segments in leads I, II and the precordial leads placed over the area of inflammation may well be seen.

If Aschoff nodules develop in the auriculo-ventricular (AV) node, complete or incomplete auriculo-ventricular block may result. Other conduction deformities, indicative of myocarditis include: notching and widening of the P wave, widening of the Q-R-S complex, and lengthening of the Q-T interval as a result of the acute myocarditis with cardiac dilatation.

In addition, pericarditis may well be diagnosed by auscultation of a friction rub or definite clinical or roentgenologic evidence of effusion.

Since P-R and Q-T intervals are lengthened by other toxic conditions, and by cardiac enlargement, Saslaw (12) cautions against weighing EKG changes too heavily in the diagnosis, if they are the only signs of cardiac involvement.

B. *Arthritis*

Typically, arthritis begins in one joint, then travels to involve others; thus, the term "migratory polyarthritis." It is manifested by pain and limitation of active motion, by tenderness, heat, redness or swelling of two or more joints and is a major criterion. Arthralgia, which consists of pain clearly located without objective findings, is only a minor criterion. The pain must be in the joint—not in the muscles or other periarticular tissues—and must be distinguished from the nocturnal pain in the extremities occurring in normal children.

It is of great importance to differentiate joint pains of subacute rheumatic fever from non-rheumatic leg pains (growing pains). A clinical differential diagnostic chart taken from Shapiro (17) (Table I) is presented.

C. *Chorea*

Chorea must be differentiated from habit spasm, athetosis and cerebellar ataxia. Movements must be characteristic, involuntary and of moderate severity if chorea is to be used as a major manifestation. The relationship of chorea to rheumatic fever is open to question for several reasons. Although approximately 75 per cent of those with rheumatic fever develop heart lesions in the course of 10 years, only 5 per cent of those with "pure" chorea, that is, chorea as the only symptom of rheumatic fever, ultimately develop heart disease. In "pure" chorea, females vastly predominate, but this is not so in rheumatic fever as a whole. Furthermore, certain laboratory data are different in "pure" chorea. Unlike the situation in other forms of rheumatic fever, there is no increase in hexosamine, serum levels of nonspecific hyaluronidase inhibitor, and serum mucoproteins; there is no bone marrow plasmacytosis and the C-reactive protein is absent.

D. *Subcutaneous Nodules*

The subcutaneous nodules are shot-like, hard bodies seen or felt over the extensor surface of certain joints; particularly elbows, knees, and wrists, in the occipital region, or over the spinous processes of the thoracic and lumbar vertebrae.

E. *Erythema Marginatum*

Erythema marginatum is a recurrent, pink characteristic rash of rheumatic fever, in which the color gradually fades away from its sharp, scalloped edge. Its

sites of predilection are the trunk and sometimes the extremities, but not on the face. It is transient, is brought out by heat, and migrates from place to place.

The differential diagnosis of rheumatic fever includes: rheumatoid arthritis, gonococcal arthritis, lupus erythematosus disseminatus, subacute bacterial endocarditis, nonspecific pericarditis with effusion, leukemia, sickle cell anemia, serum sickness (including penicillin sensitivity), tuberculosis, poliomyelitis, undulant fever and septicemia—especially meningococcemia.

TABLE I
(SHAPIRO [17])

DIFFERENCES BETWEEN JOINT PAINS OF SUBACUTE RHEUMATIC FEVER
AND NON-RHEUMATIC LEG PAINS

Clinical Condition.....	Subacute Rheumatic fever.	Non-rheumatic.
Time of Pain.....	During entire day. Disappears on getting warm in bed. Worse on arising in A.M.	End of day or after falling asleep. Pain free in A.M.
Location of Pain.....	In Joints. Pain on motion. Child points out pain in joints. Upper extremities involved. May cause limping.	Muscles of thighs and legs. No pain on motion. Child vague in pointing out site. Rare in upper extremities.
Other Signs of Rheumatic Activity.....	Common — Epistaxis, fever, pallor, abdominal cramps, undernourishment, carditis.	Usually none.
Objective Joint Findings....	Local heat, mild swelling, tenderness on pressure.	None.
Family History of R.F.....	Common.	Rare.
Significant Laboratory Findings.....	Sed. rate increased. ASO titer above 317 units.	Sed. rate normal. ASO titer (or "less than") 159 units.

B. Laboratory

A number of tests based on the presence of hemolytic streptococcal antibodies in the serum of most patients with rheumatic fever have been devised, in an effort to make the diagnosis with a high probability of accuracy. Thus far, there is no test which is diagnostic of rheumatic fever. The use of the clinical criteria cited above are the most efficacious diagnostic tools; the laboratory tests, which will be mentioned, are only able to provide substantiating evidence of late, non-suppurative hemolytic streptococcal complications.

The first test was introduced by Todd in 1932 (18). By using a special technique, he demonstrated that the extracellular toxin of hemolytic streptococci which lyses red blood cells (and which gives them their particular name) is antigenic. The tests consists of titration (recorded in Todd units) of the amount of neutralizing antibody present. Todd called the antigen, streptolysin, and the antibody, antistreptolysin. Subsequently, it was shown that there are two streptolysins,

"O" and "S" (19); the former is involved in the test. Titers of more than 200 units are usually considered abnormal, but values may run as high as several thousand. Although this is the most common test, a number of other antibodies to hemolytic streptococcal antigens have been used in similar tests. These include determinations of hemolytic streptococcal antihyaluronidase (20), antistreptokinase (antifibrinolysin [21]), and antistreptodornase (antistreptococcal desoxyribonuclease [22]). The first of these is the only other test commonly used. The antistreptolysin "O" titer was found to be high in 95 per cent of children with rheumatic fever tested within one month of onset of the disease, and figures of 70 per cent and 60 per cent, respectively, for antihyaluronidase and antistreptokinase by Stollerman, Lewis, Schultz and Taranta (23). However, 99 per cent of the patients showed an abnormally high titer for one or more of these antibodies.

The nonspecific tests for infection include erythrocyte sedimentation rate, C-reactive protein precipitin test and a whole battery of determinations of normal blood constituents; such as, nonglucosamine polysaccharide, hexosamine, mucoprotein, nonspecific hyaluronidase inhibitor and others, which help in following the course of an infectious disease, have been used.

The erythrocyte sedimentation rate can be influenced by many factors, but is, by and large, an expression of the size of the particles formed by aggregated rouleaux of red blood cells. The size of the aggregates is dependent upon the properties of the blood plasma rather than upon changes in the blood cells themselves. The two plasma components, which influence the sedimentation most, are the serum fibrinogen and globulin; the accelerating effect of the former being approximately six times that of the latter.

It has been established that there is an increase in plasma fibrinogen, resulting from increased synthesis by the liver, in disease states characterized by tissue inflammation. It is usually insisted that the ESR be normal, or close to normal, before a patient who is convalescing from rheumatic fever is allowed out of bed. It should be kept in mind that rheumatic fever patients are anemic and have high gamma globulin levels. Both of these latter factors are causes of an elevated ESR, and perhaps a better index of the stage of convalescence in the rheumatic fever patient is the C-reactive protein test.

In 1930, Tillet and Evans (24) observed, in the sera of patients acutely ill with pneumococcal pneumonia, a precipitin reaction on the addition of the somatic C substance of the pneumococcus. Subsequently, it was found that this phenomenon occurred during the acute phase of infections caused by other microorganisms. It is known now that the phenomenon is due to a protein not normally present in the blood, which, quite coincidentally, has the capacity to precipitate the pneumococcal C polysaccharide. One advantage of this test in serial follow-ups of the rheumatic fever patient is the fact that it is not altered by chronic passive congestion of the liver, as is the ESR.

Unfortunately, these two tests, which are of such great importance in assessing, indirectly, the degree of activity of the rheumatic process, cannot be relied upon

during steroid or ACTH therapy, because of the anti-inflammatory effect of these agents, which is sufficient to cause these tests to be normal in the face of continued inflammatory activity.

III

THERAPY

There are many measures of proved value in the treatment of acute rheumatic fever. These include rest, salicylates for polyarthritis and fever, and digitalis and mercurials for congestive heart failure, should it occur.

Both sulfonamides and penicillin have been shown to be of value in prevention of rheumatic fever. On the other hand, sulfonamides were found to be without benefit in treatment of rheumatic fever (25). In 1955, Stolzer (26) et al. published their analysis of the comparative effects of acetylsalicylic acid, corticotropin and cortisone in rheumatic carditis.

They treated 53 patients with acetylsalicylic acid; 41 patients with cortisone; and 41 with corticotropin and followed them for 14 months from the start of treatment. In order to eradicate streptococci and prevent reinfection, patients were treated with penicillin during the active phase and then were given sulfadiazine (1.0 to 1.5 grams per day). They were all kept at bed rest for nine weeks, and then allowed gradually increasing activity.

A murmur was heard after 14 months in 50 per cent of the patients in the corticotropin and acetylsalicylic acid groups, and in 40 per cent in those treated with cortisone. Murmurs classified as being significant were heard in approximately 34 per cent of the first two groups, in contrast to 18 per cent in the cortisone-treated group.

Thus, among those patients receiving cortisone, the fewest new murmurs appeared and the greatest number of murmurs disappeared during the treatment. During the follow-up period there were 14 patients (11 per cent) who developed streptococcal pharyngitis. Eight were among the cortisone group; five among the corticotropin group; and one among those treated with acetylsalicylic acid. Thus, the fact that the fewest significant murmurs were heard in the cortisone-treated group could not be correlated with the differences in reinfection rate. By these and other criteria, the authors could not reach a definite conclusion as to whether or not cortisone and corticotropin are superior to acetylsalicylic acid in the prevention of rheumatic valvular heart damage.

Hecht and his co-workers (27) found that it was not possible to give the subjects enough cortisone or ACTH to suppress rheumatic activity without producing some signs of the Cushing syndrome. They found the most difficult decision to make was that of when to stop hormone therapy. The medication suppresses the usual laboratory and clinical evidences of activity. They found that there was some sign of increased activity, if only the sedimentation rate, when cortisone

or ACTH was discontinued. They found it difficult to be sure, in any given case, whether the signs of activity would subside or progress. They have made it a practice to reinstitute hormone treatment when cardiac findings deteriorate, when joint pains or fever last more than two days, or when the sedimentation rate is definitely abnormal, and still rising, in the second week after hormone therapy is stopped.

These investigators stress the fact that cortisone does not cure rheumatic fever. It is used in hope of suppressing the inflammatory reactions which occur during rheumatic activity. In cases where rheumatic activity pursues a low-grade course for a long duration, it is pointed out that long-term use of the hormones might do more harm than good. They believe that in subacute and acute rheumatic fever, with certain precautions taken, the dangers of cortisone and ACTH are not great in relation to the seriousness of the disease.

In another series of patients (28), it was found that there was no significant difference between the hormone-treated and control subjects in terms of the appearance or disappearance of cardiac murmurs, the degree of transmission of apical systolic murmurs, incidence and duration of pericarditis or other cardiologic phenomena. Their three groups consisted of ACTH, cortisone and control (symptomatic). Salicylates were not administered to the hormone-treated group. Other groups have not been in complete agreement with the conclusions of the workers whose investigations with steroid therapy have been mentioned above (29, 30).

In a review of the literature up to 1954, McEwen (31) stressed that for the treatment of rheumatic polyarthritis without evidence of carditis, salicylate probably is preferable to cortisone or ACTH. He outlines a plan of treatment as follows:

1. In any patient with rheumatic fever, penicillin should be given at once in sufficient doses to eradicate the hemolytic streptococcal carrier state.
2. Prophylaxis should then be begun and continued indefinitely to prevent infection with hemolytic streptococci.
3. If no evidence of carditis is present, salicylate should be begun. A satisfactory dosage schedule is 0.06 grams (1 grain) per pound of body weight (up to a maximum of 10 grams) daily for two days, then 0.04 grams ($\frac{2}{3}$ grain) per pound daily for five days, and 0.03 grams ($\frac{1}{2}$ grain) per pound daily for three weeks. After this, salicylate can be reduced to 1 gram in four divided doses, if no evidence of smoldering carditis is evident at the end of four weeks.
4. In the presence of carditis, 300 milligrams of cortisone daily is to be given immediately and continued for 6 weeks, after which the dose is reduced half a tablet (12.5 milligrams) daily. Potassium chloride is given in enteric coated tablets in doses of 1.0 grams two or three times daily after meals, during cortisone therapy.
5. If salicylate is to be given with cortisone, it is recommended that in the hope of minimizing the rebound phenomenon, salicylate dosage be continued at the level of 0.03 grams per pound of body weight daily for three weeks after cortisone has been stopped."

IV

PROPHYLAXIS

A. Immunization

Numerous attempts to immunize against hemolytic streptococcal respiratory disease have been described, but at the present time all efforts have been either relatively unsuccessful or impractical. Robertson et al. (32) attempted to reduce the incidence of streptococcal respiratory disease in 1944, by the sterilization of air and the control of extra-human reservoirs of infection. Their results were enlightening and encouraging; but were carried on in army camps under conditions of regimentation and control, which prevent their techniques from being utilized among the civilian population.

Chemoprophylaxis of hemolytic streptococcal infection by the use of sulfonamides was carried out with considerable success in groups of rheumatic children in the armed forces by Damrosch (33) in 1945. However, epidemics developed in which the causative agents were resistant strains of streptococci.

Gabritschewsky (34), who recognized the streptococcal causation of scarlet fever, prepared a vaccine in 1930, from streptococci isolated from human beings suffering from this disease. The material has been administered to thousands of European children in clinical experiments and appears to have been efficacious in reducing the occurrence of scarlet fever in the immunized groups. The method of preparation of the material, reactions following its use, and results of serial Dick testing indicated that the vaccine contained large amounts of erythrogenic substance of Dick, in addition to streptococci. It is presumed that the immunity conferred was the result of production of antierythrogenic antibody, rather than antibacterial immunity. In addition to reducing the incidence of scarlet fever, this vaccine was also capable of reducing the incidence of streptococcal respiratory disease.

There has been considerable controversy concerning whether or not resistance to streptococcal infection is type specific. According to Lancefield (35), the organisms pathogenic for man are members of a single serologic group ("A"). The members of this group may be further subdivided into types on the basis of two protein constituents of the bacterial cell: the "T" and "M" substances. His investigations supported the concept that resistance to infections by these streptococci is type specific and closely related to the "M"-anti"M" system.

Evans (36), in a series of papers, has presented evidence that certain strains of Group "A" streptococci have a broad immunologic base, and are capable of stimulating antibodies which can protect against other types. This work indicates the importance of attempting to gain group specific immunization in streptococcal disease. Attempts have been made to produce type specific antibodies in man and to evaluate resistance to infection. In 1946, Young and Breese (33) failed to produce protection against natural infection with the use of heat and ultraviolet-killed organisms injected into naval personnel three times per week.

An exploratory study of the immunization of human beings with Group "A" hemolytic streptococci was described in 1949 (37). The author's data suggest that antistreptococcal prophylactic immunization will not be practical or useful if a demonstrable type specific antibody is essential for its success. Few persons will tolerate the large amount of vaccine that must be administered over a long period of time in order to stimulate the production of these immune substances. Type specific and other antibacterial antibodies developed only in those subjects who received a very large amount of vaccine over a nine-week period. Toxic reactions were severe and increased reactivity to the infection of hemolytic streptococci developed in some subjects. This was probably due to artificially induced sensitivity of an immunologic type to the streptococcus or its products.

Thus far, efforts to attain immunization have been of little value. However, further study of the constituents of the bacterial cells, and perhaps studies leading to greater knowledge of cellular physiology may prove fruitful in isolating a common principle which is capable of group specific immunization without toxicity.

B. Antibiotic Prophylaxis

At the present time, the prophylactic treatment of choice is considered to be the use of single intramuscular injections of benzathine penicillin G. The report of a two-year study with this compound (38), which appeared in the *New England Journal of Medicine* in 1955, presents "further confirmatory evidence that monthly injections of benzathine penicillin offer a highly effective, safe, and practical method of prophylaxis against rheumatic recurrences." No recurrences of rheumatic fever were observed in the 145 patients who received monthly intramuscular injections of benzathine penicillin 1,200,000 units. There were only two rheumatic recurrences among 111 patients who received 2,000,000 units of penicillin by mouth daily, and 5 of 73 patients receiving 1.0 gram of sulfadiazine daily. All those who suffered recurrences with oral prophylaxis admitted frequent breaks in the regimen because of forgetfulness. The incidence of hypersensitivity on this regimen was no greater than might have been expected with the use of other penicillin compounds administered parenterally in similar doses.

These results were confirmed by Tidwell (39), who found no rheumatic recurrences in 59 patients treated with the same regimen over a period of two streptococcal seasons. The Beta hemolytic streptococcus did not appear in 407 nose and throat cultures, and there were no evidences of subacute bacterial endocarditis. It was found that there was no aggravation of renal disease or asthma in the children ill at the start of the program. No evidence of hypersensitivity or drug resistance developed at any time in the program. Similar excellent results were reported by Diehl et al. (40), who used the same method of prophylaxis in rheumatic subjects. In these three studies, the subjects were patients who had suffered a clinically recognizable attack of acute rheumatic fever within 18 months prior to the beginning of benzathine penicillin "G" prophylaxis. How-

ever, it has been found that the frequency of rheumatic fever, following untreated streptococcal infection, is about three per cent. This is the origin and basis of attempts to prevent first attack rheumatic fever by Hubbard (41). The epidemiologic evidence leading to these statistics is summarized in Table I, which is taken from Hubbard's article.

TABLE I
JOHN P. HUBBARD

Location	Year	Streptococcus Infection		Rheumatic Fever	
		Source	Number	Number	Percent
Denmark	1926	Milk-borne	840	30	3.6
North Carolina	1943	Food-borne	100	3	3.0
Boston	1950	Scarlet fever	102	4	3.9
Wyoming	1949-51	Tonsillitis	1,206	32	2.6

On the basis of the Youngstown (Ohio) Program in 1950, in which nose and throat cultures were obtained from each of 1,017 school children with sore throats and treatment with 600,000 units of procaine penicillin in aluminum monostearate given to the 57 with streptococcal pharyngitis, the author stresses his plan for prevention of rheumatic fever. He states that there is great difficulty in diagnosis of Beta streptococcal infections on clinical grounds alone. When checked against bacteriologic cultures, the accuracy in both positive and negative cultures was about 75 per cent. Symptoms and signs may be suggestive of streptococcal infection, but throat cultures materially increase the accuracy of diagnosis. For such patients, in whom streptococcal infections are believed to be present on clinical grounds by a skilled physician, the author advises initiation of penicillin therapy without waiting for bacteriologic confirmation. Furthermore, the culturing of all upper respiratory infections, especially in school-age children, will lead to diagnosis of streptococcal infections, which are clinically unrecognizable, and which probably have the same percentage of rheumatic sequelae if permitted to go unrecognized and untreated.

V

SURGICAL CONSIDERATIONS OF CARDIAC SEQUELAE OF RHEUMATIC FEVER

A. Pathologic Physiology (42)

One of the important basic lesions of acute rheumatic fever, which occurs in the heart, the joints and, to a lesser degree, in other organs, is swelling and degeneration of the collagenous ground substance of the fibrous tissues. In the early stages this is called fibrinoid degeneration or swelling and, later, fibrinoid necrosis.

These changes are soon augmented by proliferative reactions involving the myocardium, cardiac valves, subcutaneous tissues and joint capsules. The proliferative lesions characterizing rheumatic infections of the heart are: a) a tiny granuloma, microscopic in size, known as the Aschoff body; b) a widespread, inflammatory cellular exudate composed of large mononuclear cells or occasional eosinophils; and, c) a healing state, in which fibrous tissue replaces lost functional elements.

Rheumatic endocarditis, or verrucous endocarditis, is the most characteristic cardiac lesion of acute rheumatic fever. Tiny, wartlike nodules (verrucae), ranging from one to three millimeters in diameter, form along the closing or contact edges of the leaflets or cusps. They are of firm consistency, and hence are not readily dislodged to produce embolic phenomena. These lesions are prone to cause changes in the valves which are responsible for the higher incidence of both subacute and acute bacterial endocarditis in the patient with rheumatic heart disease.

Since the rheumatic pathologic process is truly an endarteritis, one would assume that the most vascular valve would be the one most often affected. This is the case (Table II), and the mitral valve is therefore the most frequently involved, followed closely by the aortic. Involvement of the mitral and aortic valves, together, is next in order. The tricuspid is attacked quite frequently, but less severely than the mitral and aortic valves; the pulmonic valve is rarely affected.

Verrucae soon become organized due to connective tissue cells that grow in from the leaflet. As recurrent attacks of rheumatic activity occur, new crops of verrucae are formed. As they heal, the leaflets gradually become thicker, shorter, and scarred. The chordae tendinae become shortened and thickened and the rigidity and deformity of these normally delicate structures are further distorted by the process of calcification. The final result is the "buttonhole" or "fishmouth" valve of mitral stenosis, or the greatly deformed, calcified structure seen in aortic stenosis.

The remainder of this paper will outline the surgical treatment of rheumatic heart disease.

TABLE II

OLD VALVULAR DEFORMITIES (130 CASES) CLAWSON, BELL AND HARTZELL (43)

Valve	Number	Percent	Valve	Number	Percent
Mitral	95	73.0	Mitral alone.....	44	39.0
Aortic	82	63.0	Aortic alone.....	32	24.6
Tricuspid	13	10.0	Tricuspid alone.....	0	0
Pulmonic	3	2.3	Pulmonic alone.....	3	2.3

B. Surgical Treatment of Rheumatic Heart Disease

The medical treatment of rheumatic disease is of limited value in some cases of rheumatic heart disease. However, it cannot cause regression of the basic

valvular deformity, once established. As early as 1902 (44), Brunton foresaw the advent of successful cardiac surgery in the treatment of valvular, mostly mitral, stenosis. The first successful attempt at operation on a patient with acquired valvular disease was carried out by Tuffier (45) eleven years later, following numerous animal experiments. In this operation, the wall of the aorta was invaginated with the finger and the aortic orifice dilated.

It was not until 1923 that Cutler (46) performed the first successful operation for mitral stenosis. He approached the valve from the left ventricle by the use of a special valvulotome. However, it was discovered that marked mitral incompetence was caused by this type of operation. It was therefore abandoned without the substitution of another procedure for twenty-five years. The names of Harken, Bailey, Smithy and Brock are the most prominent in the literature concerning pioneer efforts at surgical correction of mitral stenosis by the method which is used today.

All of these advances have been made on the intact, blood-filled, beating heart without the aid of direct vision. Although a great deal of animal experimentation has been carried out in an attempt to develop artificial oxygenation that will deliver a normal blood flow to the body while the heart is being operated upon, as yet they have not been used on a large scale on human beings.

The Aortic Valve

In the foregoing section of this paper the pathologic basis of aortic stenosis has been discussed. Wiggers (47) has shown by animal experimentation that there must be 60-70 per cent narrowing of the original diameter of the aortic orifice before cardiac output, per beat or per minute, is reduced. Nevertheless, narrowing of 15 to 30 per cent is sufficient to cause audible and recordable murmurs. Clinically, one sees decrease of the aortic systolic pressure and pulse pressure and often elevation of the diastolic pressure. The radial pulse is correspondingly of the flat and delayed variety—"pulvus parvus and tardus."

According to Friedburg (48), the clinical symptoms of aortic stenosis are due to decreased cardiac output; as a result, the coronary flow is decreased in the face of requirements of increased blood flow to the hypertrophied left ventricle. These events account for the angina pectoris and frequent fainting spells which are often the presenting complaint in this group. Signs of left ventricular failure with pulmonary edema, resulting from the increased work which the myocardium must carry out in the face of aortic stenosis, usually occur late in the disease. Once present, however, left ventricular failure reacts poorly to medical treatment and advances rapidly via subsequent right heart failure to the fatal outcome.

The mechanical nature of this disturbance in circulatory dynamics has encouraged several surgeons to suggest methods of relieving the stenosis. In 1950, Glover (49) and his co-workers tried the ventricular approach in one case, but the patient died on the operating table. They then devised a new approach in which

they introduced a dilating instrument through the carotid artery and were thus able to perform a successful aortic commissurotomy in three of five cases, with two deaths.

Veidner (50) performed another aortic valvulotomy in 1951 by using a thin-bladed knife directed toward the valve by a trans-ventricular approach. Bailey, Brock and Larzelare have had discouraging results by the use of various instruments which they have devised for either rupture of the aortic valves or dilation of the aortic ring. The reasons for the lack of success in these various procedures is summarized by Craford and Werko (50) as being due to several factors. In the first place, in rheumatic aortic stenosis, the valve is always heavily calcified. In addition, it is much more likely to develop incompetence than the pulmonary valve, since the blood pressure in the aorta is so much greater than that in the lesser circulation.

It must be noted that a minor degree of aortic incompetence is always an accompaniment of aortic stenosis. Sometimes the rheumatic valvulitis has caused curbing and retraction of the cusps of the aortic valves, or subsequent ulcerous endocarditis has virtually destroyed them (42). Although aortic insufficiency is less severe in rheumatic heart disease than it is following luetic infection; when marked, it has a more rapidly deleterious effect than aortic stenosis. Tremendous ventricular enlargement as a result of hypertrophy and dilatation results in incompetence of the mitral valve followed by dilatation and hypertrophy of the left atrium.

Clinically, a wide pulse pressure is produced by marked drop in aortic pressure as regurgitation takes place at the end of systole when the left ventricular myocardium relaxes. The amount regurgitated is kept at a minimum by shortening the diastolic time by means of a tachycardia. The tachycardia seen in aortic insufficiency is thus a compensatory mechanism to keep the cardiac work per stroke down, and an effective cardiac output is sustained by increasing the stroke volume with the amount regurgitated. The amount of regurgitated blood may be as much as 60 per cent of the stroke volume (47).

Surgical intervention in aortic insufficiency has met with considerable success since the development of an artificial plastic ball valve by Hufnagel (51). The prosthesis is placed in the descending aorta and it reduces the amount of regurgitated blood, results in decreased heart size and improved total blood flow. However, the operation still carries a heavy mortality rate and the fate of the artificial ball valve in the descending aorta is as yet unknown. The operation entails clamping of the aorta distal to the origin of the cerebral blood flow, during insertion of the valve.

The Mitral Valve

The normal mitral valve consists of two leaflets, one ventral or anterior and one dorsal or posterior; the anterior being much the larger. Brock (52) has pointed

out the importance of the chordae tendinae in severe valvulitis, in which not only do the margins of contact of the valves adhere to each other, but the chordae become firmly adherent across the valvular opening. They may form a firm fibrous mass which constitutes a grave obstacle to surgical alleviation of the stenosis.

Harken and his co-workers (53) have described two types of stenosis of the mitral valve. Type I is primarily a rigid, fibrous contraction of the leaflets to form a stenotic opening with little thickening or fusing of the chordae tendinae. Type II consists of an elastic funnel with marked fusion of the chordae. These fused chordae may even constitute a secondary stenosis. Type I constitutes about 85 per cent of all cases of mitral stenosis and commonly shows calcification. Calcification is rare in the uncommon type II classification. In type I stenosis, the results of surgical intervention are usually good, but in type II they are generally poor. There is no present method of determining the valvular morphology prior to surgery.

Wiggers (47) has demonstrated that there can be a 75 per cent reduction in the surface area of the mitral orifice without marked increase in resistance of blood flow from the left atrium to the left ventricle. With increased narrowing of the mitral orifice, the pressures in the pulmonary circuit tend to become higher and the cardiac output lower. With tight mitral stenosis, exercise causes a marked increase in pressure in the pulmonary capillary-venous system and pulmonary artery, with little or no change in cardiac output. The clinical aspects of right heart failure becomes evident when the right ventricle proves inadequate to overcome the increased resistance due to right auricular pressure increase.

The left auricular appendage is used as a common avenue of approach to the stenosed mitral valve in both the Harken and Bailey (54) procedures. The essential difference between the two procedures consists of their attitude toward the use of a knife-like instrument for incising the stenotic valve. Harken prefers to perform a finger-fracture commissurotomy, and resorts to some sort of instrument only when this is impossible, such as in Type II mitral stenosis. Bailey uses a valvulotome, and has had the best results by making several small cuts through the adhesions along the commissure until an incision of satisfactory length has been accomplished. Their results have been comparable.

Mitral incompetence (48) causes a regurgitation of blood into the auricle during left ventricular contraction. Instead of the normal fall in left atrial pressure that accompanies early ventricular systole, because of the downward movement of the atrioventricular ring, there is a rise in left atrial pressure, resulting from regurgitation through the mitral orifice. This results in rise in pressure in the pulmonary capillaries as it is propagated backward through the veins from the left atrium. Wiggers (47) has demonstrated that the major elevation of left atrial pressure is simultaneous to the discharge of blood into the aorta. The size of the regurgitation is not only conditioned by the size of the leak, and mean ventricular pressure, but also by the velocity of tension developed during isometric contraction. Any cause

which weakens ventricular contraction is extremely dangerous, due to the constant vulnerability to decompensation in these patients.

With discharge of blood in two directions, mitral regurgitation results in increased work for both ventricles to maintain a normal blood flow. Since the resistance is not increased, the strain on the left ventricle is less than in arterial hypertension or aortic stenosis. Heart failure is uncommon if mitral stenosis is not also present and is usually precipitated by active myocarditis.

Brock (52) has described three forms of mitral incompetence: 1. A small regurgitant stream occurring from a narrow, but not grossly stenosed, orifice. In this case, the stenosis is the main disability and the incompetence may be corrected when the valve is freed. 2. A moderately large regurgitant stream occurring from a narrow, but not grossly stenosed, orifice. This is found in the most severe grades of rheumatic valvular damage and is common. 3. A powerful current of blood which is propelled into the left auricle during ventricular systole, in the absence of stenosis. This is believed to be due to the additive effect of marked dilatation of the mitral ring, superimposed upon damage on the leaflets, or active rheumatic inflammation. In this form, the heart is markedly enlarged and the pulmonary circulatory changes described above are of moderate degree, while effective cardiac output is normal.

In a very fine paper by Gorlin and his associates (55), they stated the results of their studies of the pulmonary circulation in 11 patients with combined stenosis and incompetence of the mitral valve, and in one patient with pure mitral insufficiency. They concluded that mitral incompetence, in the absence of co-existent stenosis, or left ventricular failure, is characterized by fatigability instead of dyspnea, frequent absence of hepatomegaly and edema, an apical systolic murmur, auricular fibrillation, an invariably enlarged left atrium by fluoroscopy (often with paradoxical pulsation). Not uncommonly, there is absence of any ventricular preponderance by electrocardiogram. The presence of left ventricular hypertrophy was found to be indicative of severe regurgitation.

Surgical correction of an incompetent valve is much more difficult than repair of the stenotic valve. Free vein grafts were used as early as 1938 by Murray (56), who placed them transventricularly and achieved partial correction of experimentally created mitral insufficiency. Bailey has used a pericardial pedicle instead of vein grafts in an adaptation of this method. The pedicles function as flap valves, preventing most of the regurgitation. Plastic valves have been suggested by Denton and Harken (57), but their results have not been encouraging.

Among all the valvular lesions of rheumatic heart disease, only the valvulotomies for mitral stenosis present results that establish them as suitable for use in the practical work of treating patients. Advances in experimental work with "artificial hearts," which would maintain circulation during operation on the bloodless heart, plus other means, in addition to hypothermia, in reducing the metabolic demands of the body, appear promising.

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TRIQUN IN THE TREATMENT OF DISCOID LUPUS ERYTHEMATOSUS AND LIGHT SENSITIVE ERUPTIONS*†

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GEORGE C. SMITH, M.D.
Florence, South Carolina

Page (1) and others (2 to 5) have established the efficacy of Atabrine in the treatment of lupus erythematosus. Chloroquin (6 to 9), Plaquenil (10) and Amodioquin (11), other antimalarial drugs, have been reported to be of value in treating this condition. Brodthagen and Christiansen (12) have shown that Mepacrine (Atabrine) and chloroquin are effective in the treatment of chronic polymorphic light eruptions.

During the past fifteen months the authors have treated twenty-four patients with discoid lupus erythematosus and twenty-four patients with polymorphic light sensitive eruptions with a combination of Atabrine, chloroquin, and Plaquenil, known as Triquin. This report summarizes the authors' experiences.

THE STUDY

Patient Selection. Patients were obtained from the authors' private practices and the out-patient departments of the University of Maryland Hospital in Baltimore and Baltimore City Hospitals. All patients were adults ranging from 22 to 45 years of age. Therapeutic effects of the drug were not appreciably influenced by race or sex. There was no indication that previous therapy altered the response to the drug under study.

Patients with lupus erythematosus had had the condition for three weeks to twenty years. Patients with light sensitive eruptions complained of recurring skin eruptions on exposed surfaces during the summer months for one to eight years.

The Drug. Triquin was supplied in compressed tablet form, each containing 65 mg. of chloroquin, 50 mg. of Plaquenil, and 25 mg. of Atabrine.

Dosage. Patients were instructed to take three tablets daily for one week, two tablets daily for three to five weeks, and thereafter one tablet daily.

Laboratory studies. Pre-treatment laboratory studies included hemograms, urinalyses, and liver function studies (cephalin flocculation or thymol turbidity). Blood pictures were repeated at monthly intervals as long as the patient was under treatment. The diagnosis of lupus erythematosus was confirmed in each case by histopathologic examination.

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† Received for publication May 10, 1958.

DISCOID LUPUS ERYTHEMATOSUS

TABLE I

TWENTY-FOUR PATIENTS WITH DISCOID LUPUS ERYTHEMATOSUS TREATED WITH TRIQUIN

Number of Patients	Objective Improvement	Adverse Reactions
24	24	0

All patients with discoid lupus erythematosus were objectively improved at the end of two to three weeks and in six patients complete macroscopic involution of small or recent lesions was noted. Yellowing of the skin was noted in eight patients by the end of the second week of treatment. Four of these patients who had previously taken Atabrine stated that the discoloration due to Triquin was not as intense. No hematologic disturbances were encountered, but two patients complained of severe epigastric discomfort which was relieved by anti-acid medication, and did not require discontinuing treatment.

POLYMORPHIC LIGHT ERUPTIONS

TABLE II

TWENTY-FOUR PATIENTS WITH RECURRENT POLYMORPHIC LIGHT SENSITIVE ERUPTIONS TREATED WITH TRIQUIN

Duration of Disease	Objective Improvement In Existing Lesions	Reaction to Sunlight	Severe Adverse Reactions
One to eight years	All Patients	Improved in all Patients	None

All patients who had acute symptoms of light sensitive eruptions at the time treatment was begun felt relief within forty-eight hours. All patients were able to tolerate exposure to the sun better than they could before treatment. These patients were continued on medication throughout the summer months and the drug was discontinued in mid-October. Six patients returned in March or April of the following year with beginning relapses of symptoms, and therapy was resumed.

SUMMARY AND CONCLUSIONS

Twenty-four patients with discoid lupus erythematosus have been treated with Triquin, each tablet of which consists of 65 mg. of chloroquin, 25 mg. of Mepacrine, and 50 mg. of Plaquenil.

Twenty-four patients with polymorphic light sensitive eruptions were treated with Triquin.

No serious adverse reactions were noted during the period of Triquin therapy. Triquin is an effective form of medication in the treatment of discoid lupus erythematosus and polymorphic light eruptions.

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SALPINGOLITHIASIS SIMULATING ACUTE APPENDICITIS

REPORT OF A CASE

FERNANDO ALONSO-LEJ, M.D.*

Every surgeon, at one time or another, has had the experience of finding a normal appendix in a patient with clinical signs and symptoms of acute appendicitis. The right adnexal area, in the female, is frequently found responsible for the patient's complaints. In the case to be reported here, a calculus lodged in the right fallopian tube produced clinical symptoms very suggestive of a developing acute appendicitis.

A careful search of the literature failed to find a similar case. We, therefore, felt it would be worthwhile to present a detailed report of this case as another cause of right lower quadrant pain in the female.

Miss S.B., a 16-year-old white female was seen at Mercy Hospital on August 5, 1956. Her history revealed that 16 hours prior to admission, she developed periumbilical pain which was colicky in character. The pain became progressively worse and localized in the right lower quadrant approximately 13 hours after onset. Anorexia was present, as was constipation of 48 hours' duration. Shortly after the onset of pain, nausea developed, but emesis did not occur. There were no urinary symptoms. Her menstrual history elicited the following information: Menarche at age fourteen; last menstrual period began July 15th; menses have been regular every 28 days, lasting 3 to 4 days. Dysmenorrhea was denied. The patient admitted to premarital sexual relation during the previous six months, the last occasion being one week prior to the onset of



her illness. The past history was not remarkable and there had been no previous episodes similar to the present attack. The physical examination revealed a well-nourished young woman who was in acute distress. Her temperature was 99.6 F.; pulse 90; respiration 20; and blood pressure 110 systolic over 50 diastolic. No abnormalities were revealed in the head and neck or bony thorax. The lungs were clear and the heart was normal with the exception that an apical systolic murmur was noted. The abdomen was not distended. Tenderness was generalized, but more marked in the right lower quadrant and exquisite at Lanz's point (midway between McBurney's point and the right adnexal area). Muscle

* Resident Surgeon, Mercy Hospital, Baltimore 2, Maryland.

guarding was detected in the lower portion of the right rectus muscle. Rebound tenderness was elicited and the psoas sign was positive. Bowel sounds were present and of normal quality. A marked cutaneous hyperesthesia was noted over the right lower quadrant. The rectal examination revealed tenderness in the right pelvic area. A pelvic examination was refused by the patient. Laboratory data revealed a urinalysis within normal limits and the following hemogram: Hemoglobin of 13 grams per 100 ml. of blood (92 per cent); hematocrit 40; W.B.C. 10,500. During the ensuing five hours the patient was observed closely. Repeated white counts yielded values averaging 11,000. Her symptoms and signs were becoming progressively worse, so a laparotomy without further delay was decided upon. Accordingly, she was taken to the operating room with a presumptive diagnosis of acute appendicitis. An abdominal exploration was carried out through a McBurney incision. The vermiform appendix appeared normal. Exposure of the right adnexal area was obtained with some difficulty due to our choice of a McBurney incision. The right fallopian tube was hyperemic, but not edematous. The left adnexae could not be visualized. While a culture was being taken from the fimbriated end of the right oviduct, an intraluminal foreign body was felt and removed. This object proved to be a chalky stone, 2 millimeters in diameter (Fig. 1). The patient recovered uneventfully. Postoperative investigation failed to reveal calculi in any other region. Studies for tuberculosis were negative.

DISCUSSION

The etiology and pathogenesis of this condition is unknown to us. The pathology laboratory reported the foreign body as an amorphous calculus. No crystals were obtained to determine its chemical composition. The possibility of lithopedion seems too remote for serious consideration because of the short sexual history of the patient and the size of the calculus. Tuberculosis is considered unlikely because of the negative chest roentgenograph and negative tuberculin test. An interesting hypothesis would be to assume that this calcified mass arose within the peritoneal cavity, became a free body and was "aspirated" by the fimbriated process of the right oviduct.

In retrospect the excessive abdominal colicky-like pain, remarkable hyperesthesia and exquisite painful point were unusual. It would be logical to think in terms of a "colic" of the fallopian tube as being responsible for these symptoms. Some difficulties were encountered in exploring the pelvic organs through a McBurney incision.

SUMMARY

A case of salpingolithiasis producing a "colic" of the right fallopian tube which was diagnosed pre-operatively as acute appendicitis is reported. The origin is unknown. To our knowledge a similar case has not been reported. A right paramedian incision in lieu of the classical McBurney might be preferable routinely in females.

OBSTETRICAL CASE REPORT*

Prepared by

IRVING KUPERMAN, M.D.

Mrs. P.A. is a 28-year-old, para 4-0-3-4, Rh positive, STS negative, patient with an estimated date of confinement of September 13, 1957. Her past gestations were uneventful except for the presence of anemia with her last pregnancy. She first attended the Outpatient Obstetrical Clinic on June 12, 1957, at which time the clinical examination confirmed the presence of a 22-24 week gestation. The hemoglobin value at this visit was 10 grams. In addition to her regular prenatal instructions, the patient was placed on oral iron therapy.

When seen in four weeks she stated that for the past week she had been unable to retain any food, noted increasing weakness, lethargy, headaches, and a 5 lb. weight loss. In addition, she had seen small "blood spots" on her extremities. The physical examination revealed a normotensive, dehydrated, pale female with 100° temperature and the presence of well-defined petechial and purpuric lesions on her extremities. The hemoglobin value at this time was 5 grams. The patient was immediately hospitalized.

Hematologic studies performed in the hospital revealed a marked macrocytic, hyperchromic anemia with a megaloblastic bone marrow. Marked leucopenia and thrombocytopenia were also exhibited. The vitamin-C level of the blood serum was 0.0 mgm. per cent, whereas the vitamin-B₁₂ and serum iron determinations were within normal limits. Gastric analysis revealed the presence of free acid.

Following the confirmation of the diagnosis of megaloblastic anemia of pregnancy, the patient was begun on folic acid 30 mg. per day. Within four days a reticulocyte elevation was noted and in six days the hemoglobin, leucocyte and thrombocyte counts all began to rise. The patient's appetite improved rapidly and within two weeks of hospitalization her hemoglobin value had risen to 9.0 grams. On September 10, 1957, the patient delivered a FTLFC under pudendal block anesthesia. Her hemoglobin value at the onset of labor was 12 grams. Folic Acid was continued for one month postpartum.

DISCUSSION

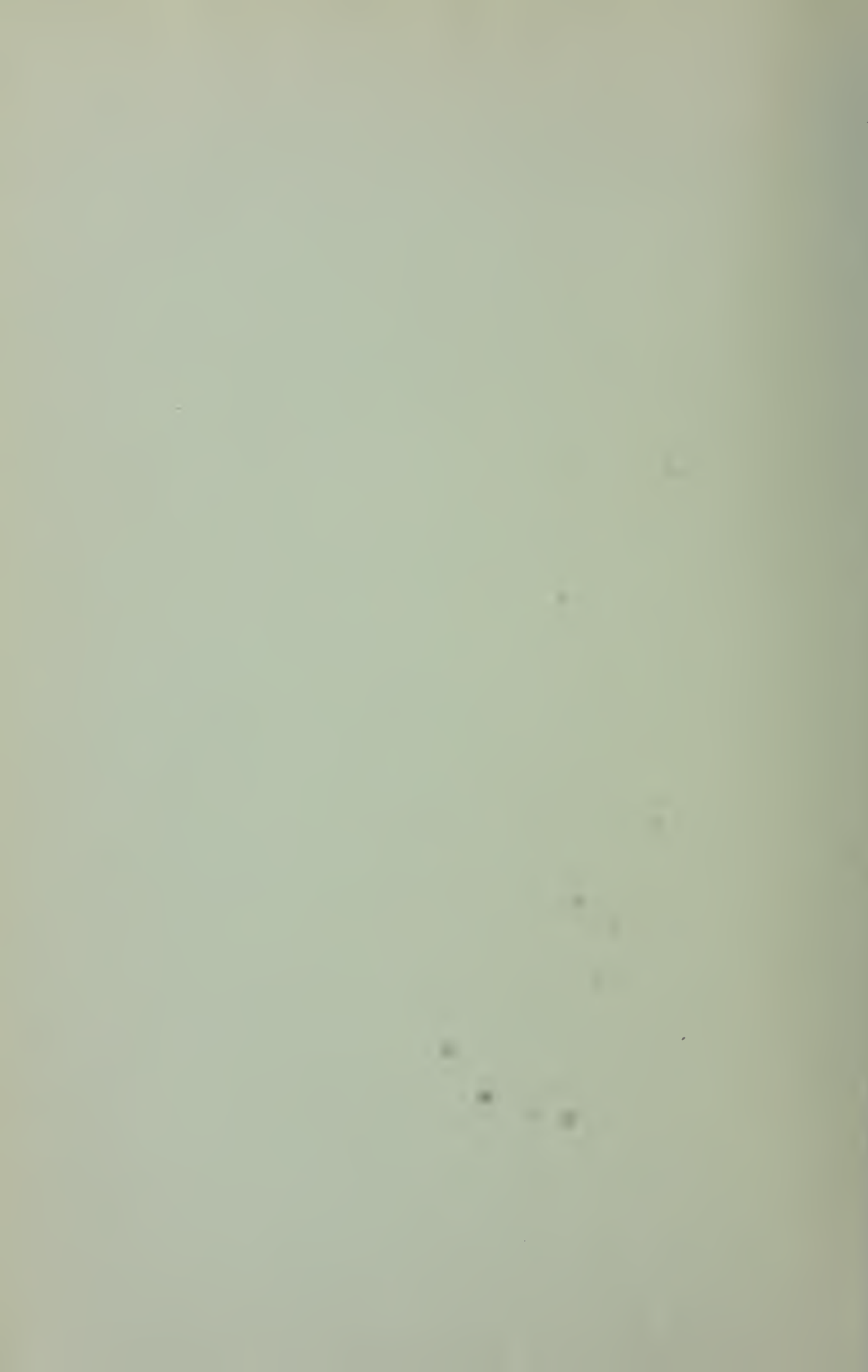
Of the severe anemias of pregnancy the majority are hypochromic, microcytic, but a few are macrocytic. Megaloblastic anemia of pregnancy is a condition most observed in women of poorer economic levels and in those with deficient diets. The anemia is most often seen in multiparous women in the last trimester

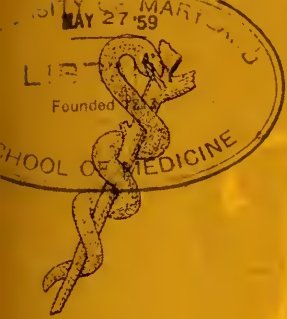
* From the Department of Obstetrics and Gynecology, University of Maryland School of Medicine, Baltimore.

of pregnancy. There may be a record of anemia in a previous pregnancy. Megaloblastic anemia disappears spontaneously on termination of the pregnancy, but may recur with future gestations.

With the discovery of folic acid, the outlook for both mother and infant is excellent. The correct diagnosis is of more than academic interest in that unnecessary blood transfusions may be avoided and the blood count may be raised within two to three weeks to normal or near normal values.

The exact etiology of this condition is thought to be due to a relative or temporary deficiency of a specific hemogenic substance produced in normal gastric digestion, but lacking during pregnancy. Toxemia or infection may interfere with the utilization of this specific factor. The specific factor is apparently folic acid or one of its conjugates (i.e., citravorum factor). Vitamin-C is necessary for the conversion of folic acid to citravorum factor. In Great Britain where this clinical entity is quite common, there has been a marked reduction in the number of cases since indigent patients have been routinely given vitamin-C supplements or encouraged to consume foods with a high vitamin-C level.





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**NEW MEDICAL SCIENCE LIBRARY AND STUDENT
UNION BUILDING UNDER CONSTRUCTION**



Site of Medical Science Library, southeast corner Lombard and Greene Streets.



Construction begins on first portion of new Student Union Building located on site west of old hospital on Lombard Street.

REPORT OF THE DEAN

1957-1958

MANY historians attribute the fall of the Grecian civilization to the introduction of malaria to the Peloponnesian Peninsula following the Grecian conquests in Africa and Asia. Whether or not this is true, it is a historic fact that no civilization has developed, flowered, and flourished without consistent, well-developed programs aimed at conserving the health of its people.

The tremendous progress made in the first half of the 20th century was preceded and maintained by medical developments that brought unprecedented health to the world as a whole. Communicable diseases, for the first time in history, have taken a secondary role as a cause of morbidity and death. A body wracked by disease is not conducive to the development and exploitation of new ideas.

If we are to maintain our civilization we must maintain our health. Although many scientific and technical fields contribute much to resources required for health, medicine still remains the keystone of the total structure. Without adequate programs of medical education, the efforts in other fields would soon come to naught and the health of the populace would deteriorate to a primitive level.

Because of the accumulation of knowledge and the difficulty of interpreting disease in man, medical education is long and costly. What is true of most areas of human endeavor is true of medicine. For individuals it takes a large investment in time, money, and intelligent human devotion to get an acceptable result. However, a very minor amount of the total of human resources are invested in health. We should see to it that support of health requirements are not neglected for other gains only to find they are vapors that vanish into insignificance when there is no health to enjoy them.

About 50% of all physicians graduated enter general practice and the remaining 50% are involved in the medical specialties, teaching and research. Today, neither group can develop adequately without graduate work after receiving the M.D. degree. For many the graduate period of training extends for five years. The individual investment encompasses three to four years of collegiate education, four years of medical school and two to five years of graduate study. Assuming the individual is 18 years of age on entering college, it means that he or she will be at least 27 to 31 years of age before he is ready to independently practice medicine. For the average student of medicine, there are no short cuts. If we were to limit the study of medicine to gifted students without money worries and establish a quarter system in the medical schools, this time might be reduced. If the student entered college at 16, the requirements for a general practitioner could be completed by the age of 23 and a specialist at 26. While a program of this sort may be obtainable

for one or two schools, we do not believe it would hold for all the schools, primarily because the demands for talent are such that it would not be available for medical school to the extent of 7,000 exceptional new individuals per year. There is a real question as to whether or not medicine would maintain the present standard of qualified graduates if the educational program was so selective and condensed. Where, undoubtedly, gains could be made in saving of time, losses might be experienced in the maturing of judgment of the individual physician.

STUDENTS ENROLLED

	<i>Residents</i>	<i>Non-Residents</i>	<i>Total</i>
Seniors	54	24	78
Juniors	59	26	85
Sophomores	66	32	98
Freshmen	64	27	91

1957-58 REPORT OF THE ADMISSIONS COMMITTEE

Total number of requests.....	1803
Total preliminary forms released.....	1803
Total preliminary forms received and processed.....	949
Total application forms released.....	665
Total requests for applications denied.....	284
Total applications received and processed.....	393
Total offers sent out.....	124
Total offers accepted.....	107
Withdrew after matriculation.....	16
Total matriculants.....	91

COLLEGE SOURCES

Brown University	2	Oberlin College	1
Capital University	1	Ohio State University	1
Catholic University of America.....	1	Pennsylvania, University of	3
Colgate University	1	Washington, University of	1
College of Notre Dame of Md.....	1	Puerto Rico, University of	2
Cornell University	1	Roanoke College	1
Davidson College	1	Rollins College	1
Dartmouth College	3	Sterling College	1
Duke University	2	Virginia, University of	1
Eastern Nazarene College.....	1	Washington College	1
Georgetown University	2	Washington & Jefferson College	1
George Washington University	1	Western Maryland College	4
Haverford College	2	Williams College	1
Iowa, University of	1	Wisconsin, University of	1
Johns Hopkins University	8	Yale University	2
Juniata College	1	Massachusetts Inst. of Tech.....	1
Kentucky, University of.....	1	Penn State University	1
Loyola College	12	Stanford University	1
Maryland, University of	15	Bowling Green State University	1
Maryland, School of Pharmacy, U. of	1	Washington & Lee College.....	1
Maryland, School of Dentistry, U. of	3	Southern California, U. of	1
Morgan State College	1		
Mount St. Mary's College.....	1	TOTAL	91

STATE SOURCES

Connecticut	1	Rhode Island ..	1
District of Columbia	2	Tennessee	1
Indiana	1	Washington	1
Maryland	63	West Virginia ..	1
New Jersey	1	Wisconsin	1
North Carolina	2	Wyoming	1
New York	3	Vermont	1
Ohio	2	California	2
Pennsylvania	5		
Puerto Rico	2	TOTAL	91

DISPOSITION OF APPLICANTS

Residents

Matriculated	64
Withdrew before any action taken ..	8
Refused offer	8
Withdrew after offer accepted	7
Offer withdrawn by the Committee after conditional acceptance	0
Rejected	71

Non-Residents

Matriculated	27
Withdrew before any action taken ..	43
Refused offer	9
Withdrew after offer accepted	5
Offer withdrawn by the Committee after conditional acceptance	0
Rejected	147

<i>College Sources</i>	<i>With Degree</i>	<i>Without Degree</i>
Loyola College	11	1
University of Maryland	11	4
Johns Hopkins University	9	1
Washington College	0	1
University of Kentucky	0	1
University of Washington	0	1
Colgate University	0	1
All others	50	0
TOTALS	81	10

Curriculum:

There are no important changes in the Curriculum over that last reported in 1956-57. Studies are in progress on improving the integration of the basic and clinical sciences. There has been a substantial increase in student fellowships, particularly during the summer period. This is possible because of the receipt of a number of grants making funds available for this purpose.

There are three students participating in the Post Sophomore Fellowships of the United States Public Health Service which provide for dropping out of Medical School at the end of the Sophomore year and working 2 to 3 years for an advanced degree in the basic sciences and then returning to Medical School and finishing. This provides an opportunity for medical graduates to obtain a thorough education in basic sciences which will contribute to their progress in Clinical Medicine, clinical investigation, and teaching.

Research:

One hundred and forty research grants are in operation in the School of Medi-

cine. Basic research and clinical investigation will be found to be in progress in every department of the School. The amount, complexity, and the balance in various areas of investigation will be found to be well above the average for all the medical schools of the United States. For details on the individual projects, the reader is referred to the Departmental Reports which follow.

Buildings:

The re-development plan for the Baltimore campus is progressing nicely. It is expected that within five years the campus will encompass approximately nine city blocks. Construction is in progress on the Library and Union Buildings and remodeling of University Hospital is continuing. As a result of studies of bed needs, the University is asking for a 95-bed addition to University Hospital in the capital improvements budget for 1959-60. This should give us more ward beds for the Medical and Surgical specialties essential for our teaching program and should, by readjustment of private patient areas, give us greatly improved areas for patient care. During the year, studies have been made which will enable us to properly plan the new outpatient building which we hope can be constructed by 1962.

Bulletin of the School of Medicine:

A study has been made of the BULLETIN OF THE SCHOOL OF MEDICINE and it has been agreed that it will hereafter be a joint publication of the School of Medicine and the Medical Alumni. A joint Editorial Board has been appointed with three appointees from the School and three from the Medical Alumni.

The BULLETIN will not attempt to limit itself to scientific publications but will accept such publications if submitted. It will publish symposia held by the School, abstracts of scientific articles published elsewhere by the faculty of the School, and school news of interest to the undergraduate and members of the Medical Alumni Association. The December issue will be devoted to the Annual Report of the School of Medicine.

Faculty:

There have been only two key appointments since the last report. Dr. George Entwisle has assumed duties as Head of the Department of Preventive Medicine and Rehabilitation after Dr. Maurice C. Pincoffs officially retired from active teaching. Dr. Paul F. Richardson has been appointed Head of the Division of Physical Medicine and Rehabilitation.

The most important event affecting the faculty was the appointment by the President and election by the Medical Faculty Board of a Committee "To Recommend a Medical Service Plan for the School of Medicine and University Hospital." This Committee met at least once weekly for the period January-May, 1958.

The Committee's findings were then reported to President Elkins, who, in turn, referred the report to the Faculty Board of the School of Medicine. After considerable deliberation, the report was slightly revised and referred back to the President. The final report, after review by the President, will be acted upon by the Board of Regents of the University and will then become the faculty policy for the Medical School and University Hospital.

Because the report contains much information on policy, including definitions of appointments and conditions influencing appointments, we are publishing it in this report so that it may contribute to a better over-all understanding of the policies operating in the Medical School. While the report quoted below has not been finally approved, it will probably only be modified in minor detail.

WILLIAM S. STONE,
Dean

REPORT OF ADVISORY COMMITTEE APPOINTED TO RECOMMEND A MEDICAL SERVICE
PLAN FOR THE SCHOOL OF MEDICINE AND THE UNIVERSITY HOSPITAL

Second Draft
July 30, 1958

INTRODUCTION

Over the past several years, many business and management questions have arisen in the School of Medicine and in the University Hospital. The absence of definitive policies led to special handling, to delays, and perhaps to inequities. Members of the Central and Medical Administration were mutually aware of this condition, and it was the subject of periodic conferences.

On the one hand, School of Medicine policies relate to the University as a whole. On the other hand, the faculty of the School of Medicine is very directly affected by these operational policies. The apparent need was an Advisory Committee composed of representatives from the University Administration and from the School of Medicine faculty. President Elkins met with the Faculty Board of the School of Medicine and outlined the general area of study. The Board elected its representatives to the Committee. Members representing the Administration were named by President Elkins.

As a broad objective, the Committee was to recommend a Medical Service Plan¹ for the School of Medicine and the University Hospital. The need for the study was not unique to the University. Many schools of medicine have been so engaged, or have recognized the need. This circumstance is due in part to changes in medical practice, in medical education, and in the sciences which support medical education as well as to changes in medical school financing.

Salary schedules in medical schools require special consideration. Our School of Medicine had given its attention to a financial arrangements plan² more than a year ago. When the report was transmitted for consideration, it became apparent that the prior need was a Medical Service Plan, with a salary schedule or schedules becoming a part of the more comprehensive recommendation.

¹ As herein used, the term "Medical Service Plan" may be defined as a statement of business or management aspects of policies and practices of the School of Medicine as they relate to the University as a whole.

² "Financial Arrangements for Medical School Teachers at the University of Maryland." Referred to later as the Finesinger Committee Report, January 24, 1957.

COMMITTEE APPOINTMENT AND METHOD OF OPERATION

The Committee membership follows:

DR. RONALD BAMFORD, *Dean, Graduate School*
DR. C. G. BLITCH, *Director, University Hospital*
DR. R. W. BUSTON,* *Head, Surgery*
MR. E. C. CADWALLADER, *Comptroller, Baltimore*
MR. C. W. CISSEL, *Director, Finance and Business*
DR. E. F. COTTER,* *Associate Professor (P.T.) Medicine*
DR. F. H. J. FIGGE,* *Head, Gross Anatomy*
DR. J. E. FINESINGER, *Head, Psychiatry*
DR. A. L. HASKINS,* *Head, Gynecology and Obstetrics*
DR. R. L. HORNBAKE, *Dean of the Faculty*
DR. J. C. KRANTZ, JR.,* *Head, Pharmacology*
DR. WM. S. STONE, *Dean & Dir., Medical Ed. & Res.*
DR. T. E. WOODWARD,* *Head, Medicine*
DR. A. O. KUHN, *Chairman, Executive Vice President*
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The Committee was asked to make early progress and to report to the President by June 1, 1958, in order that its recommendations might be examined prior to developing the asking budget for the 1959-60 fiscal year.

From the latter part of January through May 20, the Committee met weekly in Baltimore. In addition, there were a number of special meetings of subcommittees appointed for specific purposes.

At the first meeting, attention was called to a recently circulated report prepared by A. J. Carroll, Business Office of the Upstate Medical Center, State University of New York, Syracuse, New York. This is referred to as the SUNY Report, and outlines many of the problems to be considered in seeking to formulate a general medical service plan for a given institution. It also summarizes existing arrangements in 19 medical schools that were selected to be representative of medical education in the United States. Copies of the SUNY Report were made available for circulation to all members of the Committee.

Whenever a member of the faculty was unable to attend a meeting of this Committee, he was at liberty to request some other member of the faculty to substitute for the particular meeting. Where members of the Committee had access to specific medical service plans of other institutions, the information contained in these plans was made accessible to all members of the Committee.

Throughout the sessions, the Committee operated on the principle that unless a consensus could be reached on a specific question, this question would either be deleted from the report or would be reported in a manner that would allow the various suggestions to be examined and with no recommendation on the particular question.

Although initially there was a great diversity of opinion among the Committee members on a number of questions that were considered, it was possible in most

* Elected by the Faculty Board.

cases to reach an understanding of the issues involved and to recommend an appropriate course of action. The Committee has served as an important medium of communication for those who were privileged to serve as members and may well result in benefits beyond the development of the Medical Service Plan recommendation.

The non-medical members of the Committee visited a number of departments during the course of the study in order to be more familiar with the current operation. Time, unfortunately, did not permit the visiting of all departments.

OBJECTIVES OF THE SCHOOL OF MEDICINE AND THE UNIVERSITY HOSPITAL

As background material, the Committee reviewed the aims of the School of Medicine as set forth in the preamble of the *Faculty Organization*. These are repeated here for reference:

1. To select and educate students to be competent physicians of the highest character, fully conscious of their civic, social, and professional responsibilities.
2. To advance medical knowledge by maintaining facilities for supporting medical research and fostering research by both faculty and students.
3. To provide medical educators for the future.
4. To conduct medical postgraduate and graduate education to assist physicians and ancillary professional and scientific personnel to improve their knowledge and skill.
5. To assist in public education on matters pertaining to health.
6. To advise the properly constituted authorities of the State of Maryland concerning matters affecting the health of its citizens.

As an aid to clarifying the role of the University Hospital, the Committee examined the aims or objectives of this program, which were presented as follows:

1. To support the teaching programs of the Medical School, Nursing School, and the ancillary health professions.
2. To provide general medical care for acute diseases and injury on both an outpatient and in-patient basis.
3. To support clinical investigations and other research in the fields of health that do not jeopardize good medical care nor the health and welfare of individuals involved.
4. To conduct its medical care program in such a manner that it reflects conformity to the latest proven trends in medical care that allow adequate safeguarding of the rights of patients for the best opportunity to recover their health.
5. To be prepared to cooperate with other hospitals to serve the community and State to the maximum degree in conserving life and restoring the health of victims of disasters.
6. To advise the properly constituted authorities of the State of Maryland on matters pertaining to the operation of a general hospital and its outpatient clinics.

TYPES OF FACULTY APPOINTMENTS

The Committee agreed that reasonably concise statements were necessary to allow a full understanding of the various types of faculty appointments. Attention was called to the work of a faculty committee of the School of Medicine and the Finesinger Committee Report submitted on January 24, 1957. This report set forth definitions for full-time, part-time, and volunteer faculty members and served as the basis for the discussions which resulted in the following recommendations concerning each type of appointment:

Full-Time

Definition: A full-time faculty member is one who devotes his time and professional efforts exclusively to the School of Medicine and to the University Hospital, and who receives his entire professional salary from the University. Included in this definition are those affiliated hospitals where part of the academic program of the University is conducted.

Contributions: Full-time faculty members constitute the administrative and supervisory nucleus of a department, or a major division within a department, and are available continually to coordinate the educational, research, and service functions within, between, or among departments. The professional achievements and stature of these faculty members, combined with full-time dedication to University service, assures continued high regard for the work of the department, high standards, and a balanced educational, research, and medical service program.

With or without private patients, these full-time persons participate directly in the instructional program. The academic needs of the School of Medicine and the University Hospital take precedence over all other competing demands for their time and talents.

Conditions: Facilities for the professional activity of full-time faculty members are provided by the University and these facilities constitute the only location of private patient care for the faculty member.

Private patient care is ordinarily restricted to consultative services and to special referral cases which are accommodated in the interest of community welfare and which, by their uniqueness, constitute unusual teaching and research opportunities. All patients thus contacted are available for teaching purposes, or the clinical information derived therefrom is available in those few instances where direct contacts do not prevail. Income derived from private patient care shall be budgeted as a part of restricted funds to meet expenses other than major capital improvements.

Research activities engaged in by a full-time person constitute a part of his regular work load.

Other professional activities are confined to those which are necessary to maintain professional contacts and reputation. Income earned from book royalties and nominal honoraria for medical lectures and advisory committee participation is retained by the faculty member and is governed by general University policy.

Geographic Full-Time

Definition: A geographic full-time faculty member is one who devotes his time and effort to the School of Medicine and the University Hospital. He engages primarily in the academic and medical service program and, in making his professional contribution, develops a private practice within the University in accordance with established regulations. The part of his salary paid from the resources of the University is referred to as base salary, and the part obtained from fees earned through private patient care is referred to as overpractice.

Contributions: Geographic full-time faculty members bring to the Medical School high level competence in areas not similarly covered by full-time faculty members and, with the full-time faculty, give breadth and quality to the departmental operation. By being geographically located on a full-time basis at the University, these faculty members are available continually for instruction, research, and medical service. They may also hold administrative and supervisory assignments and responsibilities. The geographic full-time faculty members assure proper scope and sequence to the instruction of students, interns, and residents.

Geographic full-time faculty members are primarily interested in advancing the frontiers of knowledge and in improving practice in their specialties. Selected private cases are fundamental to the achievement of their goals. The presence of these private patients in turn gives greater range to the clinical cases represented.

Conditions: A geographic full-time faculty member centers all of his work in the University, including those affiliated hospitals where part of the academic program of the University is conducted. Facilities for the professional activities of geographic full-time faculty are provided by the University and these facilities constitute the only location for private patient care for the faculty member. These faculty members cannot maintain an office elsewhere or use the facilities of another physician or institution to engage in private practice.

The base salary of the geographic full-time faculty member comes from University resources, and the overpractice from income earned through private patient care, and from consulting services related to private patient care.³ The base salary supports the academic activities of the individual as well as associated administrative responsibilities. Earnings which accrue from private practice raise the gross income to the extent of the overpractice allowed and beyond this amount are to be budgeted as a part of restricted funds to meet expenses other than major capital improvements.

The academic program takes precedence over other responsibilities assumed by the geographic full-time faculty member. These responsibilities preclude the development of a private practice which would compare in size with that of a comparably competent private practitioner. In the development of geographic appointments, it is not the intention of the University to make available facilities which would provide for unlimited private practice, nor is it intended that University facilities be used to bring the geographic faculty member into unfair competition with private physicians.

³ Under designated circumstances contract funds may become a part of the overpractice.

Other professional activities are confined to those which are necessary to maintain professional contacts and reputation. Income earned from book royalties, and nominal honoraria for medical lectures and advisory committee participation is retained by the faculty member as income beyond overpractice and is governed by general University policy.

Participation in one or more research projects shall constitute a regular part of the activities of the geographic full-time faculty member.

Part-Time

Definition: A part-time faculty member is one who devotes approximately one-third of his time to academic or administrative activities for the School of Medicine. Under certain conditions, and on recommendation of the department head, a part-time faculty member may receive a small salary.

Contributions: Part-time faculty members may be selected to aid the School of Medicine in one or more of the following manners:

1. To provide a degree of specialization not otherwise available in a department and considered to be essential to the academic program.
2. To provide additional private patient contacts for students.
3. To provide additional opportunity for student contacts with experienced medical clinicians and other scientists.

Conditions: A part-time faculty member serving as a division head or in a major investigative position may, on the recommendation of his department head, receive special office space and facilities necessary for the performance of his specific academic and/or administrative duties. There will be no ceiling on the income which the part-time physician obtains from private practice outside the University. The part-time faculty member usually maintains an office outside the Medical School. He receives his major professional income from the practice of medicine and/or other sources.

Volunteer

Definition and Contributions: A volunteer faculty member is one who devotes most of his time to private practice, but who gives a minimum of 60 hours each year to meet specific obligations in teaching undergraduates and house staff members, to work in the outpatient department of the hospital, or to perform such other responsibilities as may be mutually agreeable to the faculty member and the department head.

Recognizing the value of the volunteer clinician in the over-all plan of the Medical School, both in teaching and service, the School reaffirms its desire to encourage well qualified voluntary physicians to associate themselves with the School and hospital.

Conditions: Volunteer faculty members are appointed on a year-to-year basis, on the recommendation of the department head, where there is a specific need for the services that are to be rendered. A volunteer faculty member conducts his private practice or work from his own office and receives no salary.

FACTORS AFFECTING VARIOUS TYPES OF APPOINTMENTS
IN THE MEDICAL SCHOOL

Full-time faculty members are oriented primarily in the academic framework of the University. In a very real sense they obtain their professional recognition and status through achievements which find their highest acceptance in academic circles. Professional security is largely associated with the quality of academic performance of the individual faculty member in his continuing activities at the University, through recognition that may come from publication or research results, and through participation in national scientific society meetings. Throughout the career of a full-time faculty member of recognized competence, opportunities develop for appointment in other medical schools, allowing a choice of teaching and research situations within which the individual may work.

Part-time and volunteer faculty members are oriented largely in the direction of medical service to private patients. Preeminence, educational satisfaction, and security accrue through the quality of service rendered. Moreover, on many occasions the part-time or volunteer faculty member does associate himself with academic programs on a limited scale. By virtue of his contributions in these various vital areas, the part-time faculty member holds academic rank.

This differentiation is not intended to convey a concept of greater or lesser significance or importance of one group or the other. The several types of appointments are essential in some departments to a well-rounded medical training and medical service program.

The University of Maryland is in a period of transition from a program where part-time and volunteer faculty members were responsible for a major work load, especially in the clinical areas, to a program wherein the major responsibility in most clinical areas is transferred to full-time faculty members. This transition is fundamentally a change in concept with regard to medical education and research, and is made possible partially because of the willingness of public and private universities to pay directly medical faculty members for services rendered. Accompanying this change is an increase in the number of house staff members, an increase in research activities, and a more comprehensive community service.

Collectively, these changes affect the role and contribution of part-time faculty members. For example, the presence of full-time persons makes it possible to assign a broader function to house staff members since the full-time physicians are available to supervise their work. Part of the additional activity by members of the house staff involves the training of medical students and the operation of the outpatient department. This, in turn, tends to reduce the need for additional part-time appointments.

The University, in changing to greater dependence on full-time faculty members, has made an organic change. Each type of appointment must be evaluated in terms of the contribution it makes in the new arrangement.

The part-time faculty member, by virtue of his broad knowledge and understanding of the patients' problems, and other medical and social problems, brings to the teaching program an essential viewpoint of medical practice and medical thinking. His relationship with the various professions and his participation in civic activities enhances the prestige of the University in the community and in the State.

Commitments have been made to part-time faculty over the years. Those commitments will need to be honored as good judgment and morality dictate. As the program of the medical center develops, arrangements for part-time faculty members should be appraised fully with proper definition of the obligations between the school and the faculty member.

As policies are developed further with respect to part-time appointments, they should be brought to the attention of the medical profession for thorough understanding.

It is apparent that diversity among departments and specialties in medical practice leads to a variation in the type of organization and the types of appointments essential to meet the academic and service responsibilities. Most departments need part-time faculty members. There are some departments where it would be undesirable, from the standpoint of the individual physician and the University, to have part-time faculty appointments.

The School of Medicine, to discharge effectively its duties, operates as an organized program which must be balanced, taking into consideration the demands and requirements of all groups. Appointment arrangements require careful planning with respect to Hospital practice, research, and office facilities, in order that the resources of the School and Hospital will not be committed to such an extent that the operation of some departments is adversely affected. At times some imbalance may exist in the facilities available to the various departments because of unusual developments or needs. The program of the School will be to recognize these situations and to plan carefully the way in which they can be fitted into the integrated operation.

The condition that a part-time physician devote one-third of his time to academic and/or administrative responsibilities for the University gives the department head a criterion for measuring the contribution of a part-time faculty member. This time requirement is not to be confused with the total time that the physician spends in the Hospital and Medical School, as much of this time may be devoted almost exclusively to the care of patients, with academic or administrative responsibilities becoming incidental in nature. Tenure for part-time and volunteer members will be the same as that of full-time members.

The contribution expected from a part-time person should be identified at the time he is employed. The obligation assumed by the University in this employment should likewise be specified with attention given to salary, hospital privileges, and facilities if these are to be included.

Part-time faculty members who hold designated key positions within departments may have offices suitable for their private practice located on University premises. As stated above, the obligations assumed by the University shall be specified at the time the arrangement is made. The cost of maintaining the facilities furnished by the University and used in private practice shall be paid by the faculty member. Such facilities may well be developed on a self-supported basis. The arrangement will be continued by the University as long as the service is essential to its operation and is performed in accordance with the original agreement or as the agreement may have been amended from time to time.

BUDGET OPERATIONS AS THEY NOW EXIST

The Committee discussed the general manner in which University budgets are now prepared and the way in which this affects the operations of the Medical School and the University Hospital. A summary is presented in this report as a background for recommendations that appear later with regard to the future budget arrangements.

From the standpoint of the University, the budget is developed each year to present in an orderly manner a statement of the total funds that are available and the way in which these funds are expected to be expended. The primary purpose of preparing the budget is to have a concise statement that reflects the agreement on how our resources are to be used following a thorough review of the operations of the entire University, the recommendation of the President, the approval of the Board of Regents, and the granting of funds by elected officials.

The budget is in no sense meant to be a "master" of the University. It is intended to be a reflection of the best thinking of all who are concerned with its development, and as such to place in proper relationship the year's fiscal commitments. Having selected this course of action, based on careful deliberation about the total University operation, the budget must be guarded carefully to avoid piecemeal decisions that might alter significantly the major intent of the budget.

In an institution as large as the University of Maryland, the budget must be a reasonably formal document that has an important effect on the operation of the various programs during the particular year. The degree to which the budget is flexible is affected not only by the policies of the University but also by laws of the State. An attempt is made to be sure that a thorough review precedes the development of the budget and to then conform as closely as possible to the fiscal plans as laid for the year. Some flexibility is always needed and arrangements are made to meet those changes that are unavoidable and are of great importance in improving the operations of the University.

The University is strongly dedicated to a continuing effort to improve the educational, research, and service programs within sound and fully accepted objectives. In fiscal matters it is apparent that not all of these projects that might be worthwhile can be achieved within any given year. This leads, in the review of the budget, to the exercise of judgment in the setting of priorities among the increases requested for existing projects and for the new projects that are envisioned. Once it has been determined that additional support shall be sought for any project, an attempt is made to delineate as clearly as possible the immediate costs that are involved in a particular activity and to project future costs that are likely to develop.

A careful review is made of existing funds and of any new funds that may come from the activities of the University. The inclusion of these funds in a realistic way achieves two results: first, the practice provides greater opportunity for the immediate improvement of present programs as well as moving into new areas of operation and, second, it provides a sound basis for requesting adequate State appropriations.

The general procedures for budget development in the School of Medicine and the University Hospital are much the same as those throughout the University. Department heads prepare their initial requests for submission approximately one

year ahead of the time that a particular budget will become effective. This is followed by a review and a coordination of the requests within each program, in this case a review by the Director of the Hospital and the Dean and Director of Medical Education and Research. These administrative leaders, in turn, meet with the central budget committee of the University and out of these meetings comes a recommendation to the President for the budget for the next fiscal year. During September the budget for the following fiscal year is reviewed by the Budget Committee of the Board of Regents and each administrative leader has an opportunity to present the basic justifications for the budget requests. After final review by the entire Board, these requests are transmitted to the State Budget Director and further reviewed, resulting in a recommendation by the Governor to the Legislature. When the final appropriations are made in March or early April by the Legislature, the information is transmitted back to the School concerned and each department has an opportunity to prepare any adjustments that are necessary within the total funds that are available. Thus, following review and approval by the President and the Board of Regents, the actual working budget is prepared in final form about two months before the fiscal year in which it is to be operative.

For the University as a whole, the budget currently developed has, as its support, State appropriations to the extent of approximately 47% of the total, federal funds approximating 3% (appropriated almost entirely for Agriculture) and income from various activities supporting approximately 50% of the total.

In the University budget as a whole, approximately 75% of the funds are included in what is referred to as the Legislative Budget and is examined in detail by officials beyond the University before final approval each year. The remaining one-fourth of the budget is known as the general area of self-supporting activities and is reviewed by the State budget officials in a general manner rather than in detail. This includes contract and grant funds, gifts to the University, and such self-supporting activities as the dormitories and the dining hall. The policies and principles under which this portion of the budget is developed are the same as for the Legislative Budget, except that any expansion or change must be made out of increased income, rather than from State appropriations.

In the budgets of the Medical School and the University Hospital, the Legislative Budget has as its main support State appropriations, student tuition and other fees, and hospital income. Contract and grant funds are handled in much the same manner as for the University, in that these funds cannot be used to provide the base salaries of faculty or staff on the Legislative Budget, but may be used for employment of faculty or staff members on a full-time or part-time basis, without tenure. Special gifts or grants are used in accordance with the provisions under which they are received and in keeping with general University policies.

Unique to the budget of the Medical School and University Hospital is the geographic full-time appointment in which a portion of the income of the faculty member is supported from funds in the Legislative Budget and an overpractice is allowed to bring the total salary to a not-to-be-exceeded figure.

The activities of physicians in the School of Medicine and the University Hospital result in fees from private patient care. These fees become a part of the restricted funds as they exceed overpractice limits in the case of some of the

physicians on geographic appointments, and as they are earnings of physicians on full-time appointments. At the present time most of these fees are deposited in restricted funds which are available for use in the department in which the fees are collected. In a few departments, fees of this type are deposited as a part of the income of the School of Medicine and/or the University Hospital for support of the Legislative Budget. Where these fees do not become a part of the Legislative Budget, the way in which they are expended varies from department to department and the extent to which they are used as part of a planned budgeted operation also varies.

Although the budgeting operations for the School of Medicine and the University Hospital have been improving steadily as administrative personnel within these programs and in central administration have come to understand more clearly all of the problems involved, there are areas in which it has not been possible to reach acceptable agreement on budget policies. Among the important questions that appeared to need further discussion by the committee were:

1. The clarification of professional fees and Hospital income in areas where there is need to have more clear-cut delineation.
2. The way in which restricted funds might best be included in the over-all budget planning.
3. The way in which greater freedom might be gained in the use of contract and grant funds to support research work of geographic full-time faculty members.
4. The establishment of a mutually agreeable salary scale for faculty members in the clinical and preclinical areas.

In the discussions by the committee that followed, an attempt was made to view collectively the more important national and local aspects of medical school and associated hospital operation and to relate these factors to fiscal problems. Attention was directed to the fact that in the various areas of medical practice, income varies greatly even though the time, effort, and unique competence of the physicians may be comparable. There is wide variation in the amount of capital investment which is essential to successful medical care in various areas of medical practice. These factors, coupled with irregular advancement in the various specialties, with some becoming highly refined during past years, and with other fields being in their initial stages of development, tend to create an ever-changing relationship among the specialties. Collectively, these inequalities in income, investment, and refinement, inherent in medical practice, become particularly apparent in a school of medicine which chooses to emphasize a comprehensive program of medical training and service. These factors will undoubtedly have a bearing on fiscal arrangements and must form a part of the background of budget development in the School of Medicine and the University Hospital.

For each geographic appointment the University establishes a ratio of over-practice income to base salary, primarily as an estimate of the distribution of a physician's total professional time. The base salary assures the Medical School and the University Hospital an adequate coverage of its instruction, research, and medical service activities. In a complementary way, the faculty member is protected from the pressures of private patient care. It is recognized that no single ratio is

applicable to all departments, or to all divisions within a department, because of the differences of time involved in earning the overpractice. Considering these appointments from a fiscal point of view, it appears that the estimates of the ratio of overpractice income to base salary can only be made on the basis of past experience and that there will be need for adjustments from year to year to conform to new experiences.

Professional Fees and Hospital Income. In viewing the relationship of hospital income and professional fees, it is recognized that there are two fairly clear-cut situations; one in which custom and previous practice have established a division between hospital charges and professional fees, and the other where one charge has covered both. There are, in fact, many gradations between these two situations, thereby constituting part of the reason for needing to review this relationship from time to time.

In those areas where by custom and previous practice there is a division between hospital charges and professional fees, it is normal practice at the University for the Hospital to bill private patients for hospital charges in connection with private patient care, and for the physician to bill the private patient for professional services rendered. It is recommended that this practice be continued and that, in addition, if it appears mutually desirable in some areas, an arrangement be established under which the Hospital may bill private patients for professional services rendered, with this billing to be in the name of the physician rendering the services.

In those areas where there has not been a clear-cut division between hospital charges and professional fees, or where one fee may have covered both charges, there will, in many cases, be no need to attempt clarification. In other instances, clarification is essential. There does not appear to be one specific manner in which all such clarifications may be attempted, rather it appears that guides should be developed for this purpose. The Committee recommends that in unsettled areas at least the following points should be considered:

1. The interests of the patients, the physicians, and the University as they are interrelated.
2. The legal definition of the practice of medicine.
3. The recognition what physicians in various medical specialties consider to be important in that specialty.
4. The continued operation of a strong, integrated, and well-balanced medical training and service program with the utilization of all resources to best meet these objectives within University policy.

Restricted Funds As They Are Related to Over-all Budget Planning. In discussing the budgeting or the planned use of restricted funds that accrue from private patient practice, the Committee faced a problem that has been a source of considerable discussion in many medical schools. The two most important aspects that make difficult the establishment of a continuing satisfactory arrangement might be stated in simple terms as follows.

Many physicians feel that it is important at all times that the institution not be in a position of appearing to be in the corporate practice of medicine and that in order to avoid such a position, any fees that are earned from the care of private patients must accrue to the physicians as allowed overpractice or must be deposited in restricted funds directly under the control of the department in which the physician is appointed.

While this is not a paramount issue with many physicians, it is of prime importance to some. In some medical training and service operations this is not an important matter because few private patients are involved in a hospital under the direct operation of the medical school. In other schools it is a source of a large total income.

Not necessarily opposed to this point of view, but in reality an important aspect of University budgeting, is the fact that the operation of the University Hospital and the Medical School is in large measure dependent upon State appropriations. Hence, any funds that accrue from these operations may logically be considered as resources for improvement of the medical training, research, and services.

Placing these two points of view into the larger context that the operation of a sound medical training and service program, in keeping with the objectives selected by the School of Medicine and the University, is the most important objective of all who are concerned with the operation of the University, it is possible to develop a way to avoid any conflict that may arise. The Committee recommends:

1. That the funds thus accruing continue to be deposited in restricted funds within the School of Medicine and/or the University Hospital.
2. That in so far as practical, these funds be restricted to use within the department in which the physicians are appointed, in order that the incentive to accumulate such funds may be retained.
3. That each year, at the time the asking budget is prepared, each department project the income which may be expected from professional fees and also project the manner in which this income will be expended.
4. That each year at the time the working budget is prepared these restricted funds be placed into final budgeted form for use during the coming fiscal year.
5. That the funds thus accruing be expended in accordance with general University regulations governing the expenditure of funds.
6. That in the administrative review of the budget requests from the various departments, full attention be given to retaining a well-balanced and integrated program throughout the Medical School and the University Hospital.
7. That where departmental restricted funds from private patient care approach a level that may lead to lack of balance within the Medical School and the University Hospital, it shall be acceptable, after faculty action, to take any necessary steps, such as transferring a portion of the restricted funds to general use in the Medical School and/or the University Hospital, or transferring State appropriations to other uses in the Medical School and/or the University Hospital, or such other changes as may be needed to retain a balanced program.

THE USE OF CONTRACT AND GRANT FUNDS TO SUPPORT RESEARCH WORK
OF GEOGRAPHIC FULL-TIME FACULTY MEMBERS

Under present University regulations the salary of a full-time faculty member, or of a geographic full-time faculty member, may not be supplemented through the use of contract or grant funds. The two principal reasons for this policy are:

1. To avoid the use of contract or grant funds to allow increases for individuals that might later have to be provided from legislative funds, thus committing funds of which we are not assured.
2. To prevent faculty appointments where tenure is involved from being dependent upon contract or grant funds that can be terminated at any time, thus placing the University in a position of tenure obligations without being assured of the financial means with which to meet these obligations.

It has been possible to employ faculty members fully on contract and grant funds with the understanding that tenure is not involved. It has also been possible to transfer a faculty member to contract or grant funds for a given period of time, provided the funds in the Legislative Budget are retained and used for commitments that do not extend beyond the period involved.

In the case of the geographic full-time faculty members, the University does not guarantee the overpractice. There are times when research opportunities develop and it is desirable for the physician involved to spend a greater proportion of his time on research rather than private patient care. In these cases it would appear logical that any or all of the allowed overpractice might be met through placing the individual on contract or grant funds. In such an arrangement it would not be the intent to use these contract or grant funds to simply meet those situations in which the overpractice failed to materialize, but definitely as a means of meeting research opportunities.

With these factors in mind, the Committee recommends:

1. That the total salary of geographic full-time faculty members be established at the same time each year, with the same guides as are used for the establishment of the salaries of full-time faculty members.
2. That once these salaries have been established, it be permissible to use contract or grant funds to meet any or all of the overpractice that is allowed for an individual faculty member.
3. That this provision be used entirely to meet research needs and opportunities.

SALARY SCHEDULES FOR THE SCHOOL OF MEDICINE

The January 24, 1957, report of the Faculty Committee of the School of Medicine, "Financial Arrangements for Medical School Teachers at the University of Maryland," served as a basis for the initial discussions of the Committee with regard to developing a salary plan. The SUNY report, having specific data on ten public and nine private medical schools, with a presentation of salary information by faculty rank and by preclinical and clinical areas, served as an important source of comparable data.

It was agreed by the Committee that the University of Maryland School of Medicine should provide salaries comparable to other medical schools with similar support, and that the School of Medicine should be in a competitive position with other schools of medicine, the same as the general University salary scale places other schools and colleges of the University of Maryland in a position to compete for faculty members. This resulted in the development of two salary schedules; one for the clinical areas and another for preclinical or basic science areas. As certain areas of the medical profession develop, their identity may not fall precisely into one classification or the other. In these instances the generally accepted category will apply. The Committee does not wish to imply or express a difference in the relative contributions between the preclinical and clinical areas but does feel that the schedules, as developed, are equally competitive in their respective areas. In developing these salary recommendations, certain references to existing salary documents and certain clarifications are needed. The conditions are as follows:

1. Academic ranks, as used, are intended to correspond with the conditions set forth in the Appointments and Promotions plan approved by the Faculty Senate on March 5, 1957. Four professional levels are used with the implication that the School of Medicine should make new appointments and provide for promotions within the four ranks. Volunteer and part-time appointees may be appointed to the ranks of assistant and associate as well as to the four academic ranks. Department heads are to be considered on an individual basis and are thus excluded from this schedule, as is the case with the over-all University salary schedule.
2. The salary schedule for the clinical areas applies to both the full-time and the geographic full-time appointments. For the geographic full-time faculty members, the base salary plus allowed overpractice of total salary is to be within the range given. In order to maintain comparableness, the geographics' salaries are based on gross collections rather than on net collections. Since overpractice is stated in terms of gross income, in determining the amount of the overpractice, recognition will be given (1) to differences in expenses incurred by physicians in various fields in private patient care and (2) to differences between full-time and geographic appointees with respect to the State Teachers Retirement System. At the time the plan becomes effective and overpractice is changed from the present net basis to the gross basis, overpractice may be reasonably adjusted because of these differences.
3. Since the avowed purpose of the geographic arrangement is to permit a designated portion of private patient care, it follows that overpractice income should be derived from private patient billing.⁴ Administratively speaking, the geographic arrangement commits the physician to devote his professional time to or within the institution. Consultation services rendered intermittently to a state or national public service group, and for which modest honoraria are received, are completely compatible with institutional purposes and the money received does not enter into overpractice. Income

⁴ Contract funds may constitute part of the overpractice under designated circumstances.

derived from regular consultancy services rendered to other institutions or agencies shall be included in overpractice. Acknowledgement is made of the condition that residents, students, and faculty members are frequently assigned to locations other than the premises of the University. Such work falls in the category of "to and within the University."

4. The supervision of overpractice rests with the department head. Each staff member having an overpractice arrangement shall maintain such records as may be necessary to reflect accurately his overpractice and shall submit annually over his signature a statement of his income subject to overpractice. This statement should be submitted not later than January 31 of each year, and where the overpractice has been exceeded, it should be accompanied by a check payable to the University of Maryland for the excess. The statement should be submitted to the dean, who, in turn, will transmit it to the designated officers of the central administration.
5. The salary schedule for full-time and geographic appointments in the clinical areas is based on a twelve months' appointment, with one month's vacation each year. For geographic full-time employees, the overpractice is stated on a twelve months' calendar year basis. If the geographic faculty member is employed for less than twelve months, then the overpractice is pro rata, as is the base salary.
6. A full-time or geographic full-time member of the faculty is not eligible for supplemental income from the University above his established salary level for services rendered to another school or college, or to another department within the School of Medicine.

The desirability of dual appointments in some instances is recognized in which a faculty member may hold a primary appointment in one department and a secondary appointment in another. Appointments of this kind are made through regular channels. In such instances, the total salary agreed upon at the time these arrangements are made may be prorated between, or otherwise shared by, the departments concerned. Such division of salary responsibility is not to be construed as constituting additional income under the provisions of this paragraph.

7. Full-time and geographic full-time faculty members are provided with the same general facilities and services within the limits of the resources of the University. Under normal circumstances this shall include such facilities and services as follows: Office, reception area, examining room, conventional furniture, telephone service, secretarial assistance, custodial service, and mail service.
8. Clinical area salaries are intended to apply to medical doctors who are employed for their competence as physicians. Doctors, other than M.D.'s within the clinical areas, shall be paid on the basic science schedule. Faculty members who hold M.D. degrees, but who are employed within the basic science areas, are to be paid on the basic science schedule.
9. Persons in the basic sciences may be placed on a ten-month pay basis and the proposed salary schedule is intended to be so administered. During the remaining two months he may be employed on research contracts held

either in the department of which he is a member or by another department within the school. When employed by the University during two summer months, the rate of pay per month shall be the same as his regular salary for the preceding year. Funds appearing in the Legislative Budget may not be used to pay or to supplement salaries for employees regularly employed on a ten-month pay basis. Consultation by full-time faculty members in the basic science departments shall be governed by the same policies as cover other areas of the University.

10. It is recognized that in the establishment of any salary schedule, and the requirements that surround the schedule, some degree of flexibility must be maintained in its administration. There will always be a few specific cases that will need individual consideration both from the standpoint of higher and lower salaries. It is felt that these should be safeguarded by the requirement that such exceptions be submitted for the recommendation of the department head, the dean or the director concerned, and be referred to the appropriate office in central administration for final approval.

DEPARTMENT OF ANATOMY

STAFF

Full-Time:

FRANK H. J. FIGGE, A.B., Ph.D., *Professor of Anatomy and Head of the Department*
EDUARD UHLENHUTH, Ph.D., *Research Professor of Anatomy*
VERNON E. KRAHL, B.S., M.S., Ph.D., *Associate Professor of Anatomy*
H. PATTERSON MACK, M.D., *Associate Professor of Anatomy*
HENRICUS G. J. M. KUYPERS, M.D., Ph.D., *Associate Professor of Anatomy*
THEODORE F. LEVEQUE, B.A., M.S., Ph.D., *Associate Professor of Anatomy*
ROBERT E. MCCAFFERTY, B.S., M.S., Ph.D., *Instructor in Anatomy*
ELWYN A. SAUNDERS, B.S., M.S., M.D., *Instructor in Anatomy*

Part-Time:

OTTO C. BRANTIGAN, B.S., M.D., *Professor of Clinical Anatomy*
WALLE J. H. NAUTA, M.D., Ph.D., *Professor of Anatomy*
WILLIAM W. WALKER, B.S., M.D., *Associate Professor of Clinical Anatomy*
KARL F. MECH, B.S., M.D., *Assistant Professor of Anatomy*
WILLIAM B. SETTLE, A.B., M.D., *Assistant Professor of Clinical Anatomy*
HARRY C. BOWIE, B.S., M.D., *Associate in Clinical Anatomy*
ROSS Z. PIERPONT, B.S., M.D., *Associate in Clinical Anatomy*
HERBERT E. REIFSCHNEIDER, A.B., M.D., *Associate in Clinical Anatomy*
HENRY E. LANGENFELDER, B.A., M.D., *Assistant in Anatomy*
RAFAEL LONGO-CORDERO, M.D., *Assistant in Anatomy*

GENERAL POLICIES, ORGANIZATION, AND GOALS

The general policies and goals of the Anatomy Department have not changed substantially in a year's time. These were enumerated in last year's report and will not be repeated as such here. Briefly it may be said that we have four chief functions:

1. To teach all branches of Anatomy to medical and graduate students.
2. To carry on medical research and collaborate with other departments engaged in similar efforts.
3. To foster the development of medical educators in Anatomy and other fields.
4. To cooperate with public health agencies and other such organizations in their goal to improve the health of the people of the State and the Nation.

In attempting to carry out these functions, it is necessary to recognize the prob-

lems involved. The chief problem in teaching Anatomy, today, is how to devise an efficient plan for dissection and the study of Anatomy and emphasize the basic concepts in the amount of time that is available. It was found long ago, and still is an accepted fact, that the best way to obtain a good basic concept of the structure of the human body and some elementary ideas of how it functions is to carry out a complete dissection. Fifty years ago, before the great expansion of medical knowledge and the addition of the now numerous specialties to the medical curriculum, it was possible to devote a larger amount of time to the study of Anatomy. Since it has gradually become necessary to reduce the amount of time, we have reached the stage where the amount of time that can be devoted to the subject of Anatomy must be reduced to the absolute minimum by finding more efficient methods of teaching. Considerable work is being done along the line of improvement of teaching procedures.

The other major problem in the teaching of Anatomy, as well as other medical school subjects, is that as our store of medical knowledge expands at an ever-increasing rate, we find that the half-life of what we call truth grows shorter and shorter. Because of this it is necessary that both the student and the teacher take entirely different attitudes toward the teaching and learning processes as compared to those that were in vogue 20 to 40 years ago. The medical school training must be regarded as the first step in a long process of continuous re-education. In order to be up-to-date, the medical practitioner of today must not only learn things rapidly and continuously but be able to discard them, and critically evaluate and accept new ideas and methods as they appear.

It is difficult to say why this trend should affect the teaching and study of Anatomy, for the human body is much the same today as it was 2,000 years ago. To teach functional and practical Anatomy as we do, however, it is necessary to continually change the emphasis. For example, the knowledge and the practical value of the knowledge of the endocrine system and the autonomic nervous system are such that these systems are covered in much more detail today than they were 20 to 30 years ago.

From a historical point of view, we also have another problem which concerns the basic philosophy of the organization of the Anatomy Department. After the Flexner Report (1912) there was a great change in the medical schools and attempts were made to establish full-time faculty members, at least in the basic sciences. In the basic sciences this was feasible but resulted in a gradual introduction of basic science specialists that were not primarily medically oriented. This had a very beneficial influence on research, but tended to alienate the basic sciences from the clinical sciences. In addition, the possibility of integration and correlation between these two divisions of medicine and even between the specialties in the basic sciences became more and more remote. While many schools are grappling with this problem, and many experiments are being tried to achieve better integration and correlation of the medical teaching, the solution to this problem will not be achieved immediately. The policies designed to help solve this problem in the Anatomy Department here are as follows:

1. Attempt to have a close-knit faculty group composed of approximately one-half broadly trained, medically oriented (M.D.) faculty members and an equal number of specialists (Ph.D.) in the field of Anatomy.

2. Establish close connections with clinical and other departments in the Medical School so that there may be a better appreciation of each other's problems and better communication between the departments.

In line with this policy, we have been able to attract and hold a faculty group which is more than 50% M.D.'s with a broad medical training. They are listed here according to the full-time and part-time staff. From this it will be seen that there are eight full-time faculty members in the department of Anatomy and 9 to 11 part-time members of the faculty, including graduate assistants. It would be desirable to have an additional instructor.

TEACHING ACTIVITIES

The courses in Gross Anatomy, Micro-anatomy, and Neuro-anatomy are taught simultaneously as integrated courses. The various members of the faculty are assigned a primary responsibility of one course and secondary in another, so that it provides an adequate number in each course but there are usually six members of the staff present in the laboratory at all times. Two staff members are assigned (if possible, one an M.D., the other a Ph.D.) to take primary responsibility for teaching each course. At the present time, however, in Gross Anatomy there are four staff members (Doctors Figge, Krah, Mech, and Saunders) that have primary responsibility for this course. In Micro-anatomy Doctors Mack and Leveque have primary responsibility. In Neuro-anatomy Doctors Nauta and Kuypers have primary responsibility. These courses are given during the first semester which during the past year was 17½ weeks in length. This was somewhat better than the previous year but it would still be desirable to have at least a full 18-week period.

Doctors Brantigan and Walker have primary responsibility for the course in Clinical Anatomy, which is given in the second semester in a period of 96 hours. This course is designed to permit a review of basic Anatomy and to emphasize Clinical Anatomy as applied to the study and practice of medicine and surgery. It also affords the student a review of his Anatomy at the end of the second year, or just before the National Board Examinations. From a pedagogic and practical point of view this appears to be a good time in our curriculum to give such a course.

COOPERATION WITH OTHER DEPARTMENTS

In carrying out the teaching program, it was again feasible to present some of the material in cooperation with appropriate clinical departments:

1. In the field of Roentgenology, Dr. Dennis participated in presenting several lectures and demonstrations. These were arranged so that the material covered was appropriate to the lectures and laboratory dissections of the parts of the body being studied. In cooperation with Dr. Saunders, X-ray films were arranged on the 16 view boxes so that the students could identify the structures marked by arrows, and thus gauge their progress in this field.
2. Doctors Blanchard and Gerlach participated in the teaching of the Anatomy of the Ear, Nose, and Throat and gave practical demonstrations in the dissecting room.
3. Dr. Ozazewski gave some lectures on the Eye and participated in the laboratory demonstrations.

4. We were also able to enlist the aid of certain specialists outside the school who were invited to give lectures in the course, "Man and His Environment." One of these was Dr. Holtfreter who lectured to the students in the field of experimental embryology to give them a better preparation for his lecture on Saturday.

TEACHING IN OTHER DEPARTMENTS BY MEMBERS OF THE STAFF

In a reciprocal way, the various members of the Anatomy Department assisted in the teaching of courses in other departments. Doctor Krah1 gives several lectures on the anatomy of the pelvis in the course in obstetrics and gynecology and some lectures on the lung for the pediatrics department. Doctor Kuypers gives some special instruction in neuro-anatomy, in radiology, and neuro-pathology. The entire Anatomy Staff also takes an active interest and assumes some responsibility for the Saturday morning interdepartmental course, "Man and His Environment."

The Anatomy Department cooperates with the Ear, Nose, and Throat Department furnishing space and anatomical material for teaching of courses on the anatomy of the head and neck. We also furnish space and material for the teaching of anatomy to the students of physical therapy, and a considerable amount of anatomical material for Dr. Uhlenhuth's investigations.

GRADUATE AND POST-GRADUATE INSTRUCTION

Through its course in clinical anatomy, the Department of Anatomy offers a course for post-graduate students. Approximately ten students from nearby hospitals avail themselves of this course. Additionally, we have from four to five graduate students majoring in Anatomy. One received his Ph.D. degree this year and another is scheduled to take his examinations in the near future. Both of these students will be leaving and have been placed in other universities.

THE OPERATION OF THE ANATOMY BOARD OF MARYLAND AND THE AVAILABILITY OF ANATOMICAL MATERIAL

One of the essentials for teaching Anatomy involves the procurement of bodies that are carefully prepared and preserved for teaching purposes. We continue to enjoy the fine spirit of cooperation of the health authorities, hospitals, and nursing homes throughout the state, who notify us of unclaimed bodies. We have an adequate amount of material and are thus able to supply cadavers to the Dental School, Freshman and Sophomore Medical Students, Physical Therapy students, and some material for the clinical departments in this and other hospitals. In spite of the fact that we have a very inadequate plant for storing and processing such material, we have a more adequate supply and better prepared material than most of the schools in this country. Mr. Mueller, who is in charge of such preparations, also continually adds to our osteological collection and the student loan bone collections. In addition he prepares many specimens that have great teaching value and has built up our anatomical teaching material museum. A room for storage of the osteological collection has been recently renovated and is being furnished with shelving to better organize this collection.

RESEARCH PROGRAM

All full-time members, and some of the part-time members, of the Department elect a research problem to investigate throughout the year but especially between the periods of active teaching. All are entirely free to choose any field of investigation or to work with any member of this or any other department in a collaborative way. Inter-departmental research programs are looked upon with favor. There are consequently a variety of research projects in progress. The individual staff members also provide their own research funds by obtaining grants from outside agencies. Almost all of the full-time members of the Department have one or more projects supported by grants. This support will be summarized later in this report.

1. One of the chief projects involves the use of porphyrins in cancer therapy. Doctors Figge, Mack, McCafferty, two medical students, Mr. Solomon and Mr. King have been involved in this project. This project arose from the fact it was observed that porphyrins tend to accumulate in growing tissues and malignant tissues and certain other areas of the body. It was also found that the porphyrin appeared to increase radiation sensitivity of tissues in which it was more concentrated. During the past year we have been interested in synthesizing metallo-porphyrins of various kinds in order to test their toxicity and their effect on tumor tissue. Eventually we intended to use some of these radio-active metals combined with the porphyrins. Doctors Mack and McCafferty have been comparing the tissue concentrations of the porphyrins in normal, fetal, and maternal tissues as well as in malignant tissues as a function of time after parenteral administration of hematoporphyrin. An attempt will be made to correlate these findings with radio sensitivity studies. Mr. King (Sophomore) has studied the influence of hematoporphyrin and sunlight on the various protein fractions of the serum of mice injected with hematoporphyrin and exposed to sunlight or of serum treated with porphyrin and exposed to sunlight.

2. Studies on the influence of adiposity and the so-called "constitution" on cancer susceptibility: As reported last year, we have developed a strain of naturally obese mice that have been inbred for over 30 generations. They exhibit a high incidence of obesity, but some are actually thin. These mice were hybridized with mice of other strains that carried factors for the development of a high incidence of mammary cancer and leukemia. The experiments lasted approximately five years; were ended during the past year and are being analyzed at present. During the past year Mr. McDonald (one of the graduate students) has tested the liver cancer susceptibility of the obese strain and compared this with the mice of the non-obese strains. This work is being summarized and tabulated for his thesis.

3. Studies of the blood sera of mice exhibiting various degrees of cancer susceptibility. A few years ago Dr. Andersch discovered that the blood serum of the mice of the C₃H strain which exhibit a high incidence of leukemia and mammary cancer had a much lower gamma globulin level than the mice of non-leukemic strains. An attempt is being made to study these blood serum levels of gamma globulin in a comparative way and to link this up to the observations of Dr. George Peck, one of our alumni, who worked with us during his student and interne periods. Just before he left, he discovered that animals and serum treated with hematoporphyrin and then exposed to sunlight exhibited very low serum gamma globulin levels. In collaboration with Mr. King, we are now studying the mechanism by which hematoporphyrin and

sunlight eliminate the gamma globulin peaks in the paper electrophoretic pattern of serum. This may lead to an explanation of the cortisone-like effect of hematoporphyrin and sunlight in preventing death from anaphylactic shock in horse-serum sensitized mice, when they are injected with a challenging dose of horse serum.

4. A project which has been underway some time has as its goal the dissection and depiction of the detailed anatomy of the pelvis, in a more precise way than it has ever been done before. The ultimate goal of this work is the production of a book on the female pelvis which will be a companion to the previously published book on the anatomy of the male pelvis. This book should be of value to surgeons and others interested in designing new and more radical operations for cancer therapy. This work is being carried out by Dr. Eduard Uhlenhuth, Bressler Research Professor of Anatomy.

5. The finer structure of the lung is being investigated by Dr. Vernon E. Krahll. He is particularly interested in the elastic properties of the lung and the arrangement of the elastic and collagenous fibers and smooth muscle. He is building up a considerable collection on the comparative micro-anatomy of the lungs of various laboratory animals. During the year he has found a method to experimentally produce pulmonary emphysema in the rat. By using this method, he intends to study the alteration of the finer structures in the lung in the early stages of pulmonary emphysema. One of the methods used to produce the pulmonary emphysema in rats involves the installation of ball-valves in the bronchi of rats.

6. Dr. Kuypers and Dr. Nauta have several projects in the field of neuro-anatomy in which they collaborate. They use the Nauta-Gyax silver stain to study the degeneration of lightly myelinated and unmyelinated fibers of the central nervous system. While their project involves the origin and terminal areas of all corticofugal projections, so far they have limited their studies to cortical projection systems descending through the pyramidal tract to the pons, medulla oblongata, and spinal cord.

The second project in the field of neuro-anatomy is the study of the thalamo-cortical projection systems. These could possibly form the anatomical basis of the diffuse thalamo-cortical arousal system, that had been investigated physiologically. Finally, Dr. Kuypers collaborates with Dr. David Jubel of the Department of Neuropsychiatry, Walter Reed Army Institute of Medical Research, on the functional relation between the hypothalamus and the ascending reticular activating system.

7. Dr. Leveque's research interests center about the hypothalamic-hypophyseal interrelationship. He uses chiefly histochemical methods and has recently studied some of the hypothalamic depressant drugs in an attempt to evaluate their neuro-endocrine relationship. He has accepted two medical students as summer collaborators, and they are attempting to study the hypothalamus and hypophysis in various physiological states.

8. Dr. McCafferty's research interests are primarily in the interchange of materials between the fetus and the mother and the dynamics of embryonic fluid flow. He collaborates extensively, however, with Dr. H. P. Mack, in this department, and Dr. Haskins in the department of Obstetrics and Gynecology. The project that he has worked on during the past year with Dr. Mack involves the hematoporphyrin accumulation in fetal and maternal tissues of the mouse. The disappear-

ance of progesterone from the maternal system near term involves collaboration with Dr. Haskins and Dr. Soiva. He and Dr. Haskins are also studying the effect progesterone has on the ovary and uterus of the rabbit.

9. Dr. Elwyn A. Saunders is interested in the anatomy and physiology of arterio-venous anastomosis and has recently applied for a grant to work on this project. He has developed a method by which he can obtain relatively fresh human organs and profuse them with suspensions of graded spheres to study the size range that will pass from arteries to the venous outflow of the organ. He also cooperates extensively with the Department of Surgery.

10. Now that we have an electron microscope in operation, several members of this and other departments are beginning to utilize this tool in their research programs. Dr. Krah1 has sectioned and examined some lung tissues and Dr. Leveque has studied some hypothalamic sections.

11. Dr. Brantigan is interested in pulmonary emphysema and the development of better surgical methods of treating such conditions. He is also interested in the problem of interrelationships of the bronchial circulation and the pulmonary circulation.

12. In collaboration with Mr. Harvey Solomon, senior medical student, we have worked for the past two summers on the quantitative determination of porphyrins in the various parts of the central nervous system. It was found that this substance exhibits a differential concentration in the central nervous system. The highest concentrations were found in the region of the medulla oblongata and so-called vital areas of the central nervous system.

In the summer of 1957 we were able to show that the two porphyrins are also present in the peripheral nerves and that they were present in a ratio of two molecules of coproporphyrin to one of protoporphyrin. Thus, there is some evidence that the presence of porphyrin in the nervous system tissues has functional significance and may be involved in the process of nerve conduction. This hypothesis is being investigated at present.

13. In collaboration with a pre-medical college student, we are attempting to analyze some of the factors in smoking devices that may be involved in the production of cancer-producing substances that are associated with the smoke. At the present time, we are concentrating on the influence of the combustion temperature on the carcinogenicity of the smoke tars.

14. Dr. Davidheiser, who was formerly a graduate student, has worked for several years on the variation and the amounts of enzymes which are capable of synthesizing porphyrins that exist in various organs. He has found that this enzyme is abundant in the liver and Harderian glands of rats. He has also demonstrated that the amount of enzyme in the Harderian gland that produces the porphyrin that is responsible for the red fluorescence of this gland varies with the age of the animal, and appears to be linked in some way to the development of puberty and the hypophyseal hormones, which are elaborated in greater abundance at that time. We have published several papers on this subject. Since porphyrin synthesis is involved in cytochrome production in all cells, we feel that this is a very basic problem.

PUBLICATIONS BY ANATOMY STAFF MEMBERS

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- LEVEQUE, T. F.: The Effects of Dehydration on the Mitotic Activity in the Hypophysis Cerebri, *Anat. Rec.* **130**:332, 1958.

GRANTS-IN-AID OF RESEARCH RECEIVED BY VARIOUS MEMBERS OF
THE DEPARTMENT OF ANATOMY
1957-1958

<i>Principal Investigator</i>	<i>Donor and Subject Investigated</i>	<i>Amount</i>
DR. FRANK H. J. FIGGE	Anna Fuller Fund for Cancer Research	\$ 2,500
DR. FRANK H. J. FIGGE	The American Cancer Society, "Obesity and Cancer"	6,294
DR. FRANK H. J. FIGGE and DR. C. W. WISSEMAN	U. S. Public Health Service, "Electron Microscope for Medical Research"	31,275
DR. FRANK H. J. FIGGE	U.S. Public Health Service, "Pharmacology of Metallo-Porphyrin in Cancer Therapy"	11,181
DR. FRANK H. J. FIGGE	U. S. Public Health Service, "Inter-action of Leukemia and Mammary Cancer Factors"	10,787
DR. H. PATTERSON MACK	American Cancer Society, "Influence of Hematoporphyrin on Radiation Treatment of Cancer"	5,954
DR. EDUARD UILENHUTH	Bressler Research Grant, "Depicting Details of Pelvic Anatomy"	4,968
DR. VERNON E. KRAHL	U. S. Public Health Service, "Finer Structures of the Mammalian Lung"	4,954
DR. H. G. J. M. KUYPERS	U. S. Public Health Service, "An Anatomical Study of the Ascending Connections of the Brain Stem Reticular Formation"	6,099
DR. H. G. J. M. KUYPERS	U. S. Public Health Service, "Cortico Fugal Connections to the Pons and Lower Brain Stem"	5,200
DR. T. F. LEVEQUE	U. S. Public Health Service, "Investigations of the Neuro-Secretory Processes in the Hypothalamus"	6,037
DR. ROBERT McCAFFERTY	U. S. Public Health Service, "Amniotic Fluid Flow in the Fetal Mouse"	2,000
Total		\$97,249

ATTENDANCE AT INTERNATIONAL AND NATIONAL SCIENTIFIC MEETINGS
AND PRESENTATION OF PAPERS BY ANATOMY STAFF MEMBERS

This year we were not playing host to the Anatomical Association as we did last year. More members were able to devote their time to presenting papers. Seven members of the staff attended the Anatomical Meeting in Buffalo, New York, and six presented papers. Very few schools were able to surpass this showing. The meetings attended by the various members of the staff have been tabulated below:

July, 1957

First International Congress of Neurological Science, Brussels, Belgium. Attended by Dr. Kuypers to give a paper and demonstration.

September, 1957

Maryland Chapter of the American College of Surgeons, Semi-Annual Meeting of the Medical and Chirurgical Faculty of the State of Maryland, Ocean City, Md. Attended by Dr. Brantigan.

American Association of Neoplastic Diseases, Baltimore, Md. Attended by Dr. Figge. Paper presented on "Trends in Cancer Research."

Regional II Meeting, American Cancer Society, Wilmington, Del. Attended by Dr. Figge.

October, 1957

Annual Meeting of the American Cancer Society, New York, N. Y. Attended by Dr. Figge (Representative of Maryland Division).

Society for Experimental Biology and Medicine, Army Chemical Center, Edgewood, Md. Attended by Doctors Figge, Mack, Krah1, McCafferty, Leveque and Kuypers. Paper presented by Harvey Solomon.

Clinical Congress of American College of Surgeons, Potomac Chapter of American College of Chest Physicians, Columbus Hospital, New York, N. Y. Attended by Dr. Brantigan.

November, 1957

Cancer Section Baltimore City Medical Society, Baltimore, Md. Attended by Doctors Figge and Mack. Dr. Mack presented a paper.

December, 1957

Interim Session of the American College of Chest Physicians, Philadelphia, Pa. Attended by Dr. Brantigan.

Southern Surgical Association, White Sulphur Springs, Va. Attended by Dr. Brantigan.

January, 1958

Conference on Medical Instrumentation, Puerto Rico. Attended by Dr. Figge. University of Wisconsin, Department of Neurophysiology, Madison, Wis. Guest Lecturer and discussant on research findings by Dr. Kuypers.

February, 1958

Seminar Meeting on "The Uterus," New York Academy of Sciences, New York, N. Y. Attended by Dr. McCafferty.

March, 1958

American College of Chest Physicians, Atlanta, Ga. Attended by Dr. Brantigan. Biological Stain Commission, Annual Meeting and Meeting of the Board of Trustees. Attended by Doctors Figge and Mack. Buffalo, N. Y.

April, 1958

American Association for Cancer Research, Philadelphia, Pa. Attended by Dr. Figge.

Federation of Biological Societies, Philadelphia, Pa. Attended by Dr. Figge.

American Academy of Neurology, Philadelphia, Pa. Attended by Doctors Figge and Nauta. Paper presented by Dr. Figge.

Histochemical Society, Philadelphia, Pa. Attended by Doctors Figge and Leveque.

Society of Head and Neck Surgeons, Baltimore, Md. Attended by Doctors Figge and Mack, paper by Dr. Figge, discussion by Dr. Mack.

Western New York Chest Conference, Buffalo, N. Y. Attended by Dr. Brantigan.

April, 1958

American Surgical Association, New York, N. Y. Attended by Dr. Brantigan.

American Association of Anatomists, Buffalo, N. Y. Attended by Doctors Mack, Krah1, Leveque, McCafferty, Figge, Nauta, who presented papers.

May, 1958

Annual Meeting of National Tuberculosis Association, Philadelphia, Pa. Attended by Dr. Krah1 as panelist in seminar.

Symposium on Comparative Endocrinology, Cold Spring Harbor, N. Y. Attended by Doctors Figge and Leveque.

American Association of Thoracic Surgery, Boston, Mass. Attended by Dr. Brantigan.

Southern Surgical Association, Baltimore, Md. Attended by Dr. Mack who presented paper.

June, 1958

First International Conference on Pulmonary Emphysema, Aspen, Colo. Attended by Doctors Krah1 and Brantigan.

Electron Microscope Seminar, Camden, N. J. Attended by Dr. Figge and Mr. Burns.

GIFTS AND CONTRIBUTIONS

It was a great pleasure to receive a contribution of \$1,000 from the Cancer Program here for the purchase of instruments. This contribution was made by Elsa Burrowes, who is a former volunteer worker in the Department. This was placed in a special instrument fund and used to help pay for the new spectrophotometer and special recording instruments.

OTHER ACTIVITIES

Perhaps the greatest acquisition so far as instruments are concerned is the electron-microscope which was installed last fall. The total cost of this project was approximately \$33,000.

Another activity which occupied considerable time during this year was the solicitation of the Alumni for contributions to commission an artist to paint Dr. Uhlenhuth's portrait. The Alumni were contacted by a letter and responded very well. We soon had adequate money to commission the artist who painted a very fine portrait of Dr. Uhlenhuth in his laboratory, surrounded by the old anatomical books which he collected. The contributions were sufficiently generous to allow us to give Dr. Uhlenhuth \$1,000 to spend on old books while he is in Europe. He left for Europe on June 23, 1958.

Dr. Kuypers spent some time in Europe, in his native country, Holland, last summer after he had given his paper at the International Neurological Meeting in Brussels.

RECOMMENDATION FOR IMPROVEMENT

While we have a relatively adequate staff of first class Anatomists, it is felt that the unfilled instructorship should be filled as soon as feasible in order to prepare for possible losses of staff members to higher academic brackets.

The Anatomy Department has been so cooperative in supplying space for other departments and interdepartmental projects that we are now faced with a necessity for looking for space ourselves. The chief needs in this line are the shortages of space for graduate students and for the relatively large number of summer fellows of the medical student group. We also need a room or a part of a room for small animals. Probably the chief need is for better storage and preparation facilities for the area that we refer to as the embalming plant. We have made some progress in the renovating and the cleaning of the bone-storage room, but it will take some considerable renovation and reorganization, however, before this area is one of which we may be proud. At the moment, the storage facilities in this area are quite inadequate. It is doubtful if these needs of the embalming plant can be met in a completely satisfactory manner until we plan the new basic science building. At this time, however, the embalming plant, cadaver storage, crematory, and interdenominational chapel should receive a high priority.

DEPARTMENT OF ANESTHESIOLOGY

STAFF

Attending Physicians:

- MARTIN HELRICH, M.D., *Professor of Anesthesiology and Head of the Department*
PAUL R. HACKETT, M.D., *Associate Professor of Anesthesiology and Assistant Head of the Department*
HOWARD S. LIANG, M.D., *Associate in Anesthesiology*
DOROTHY C. HOLZWORTH, M.D., *Associate in Anesthesiology*
NORMAN B. HOLLINGSWORTH, M.D., *Associate in Anesthesiology*
JOHN R. MARSHALL, M.D., *Instructor*
CALBERT T. SEEBERT, M.D., *Instructor*
NARCISO C. PATALINGHUG, M.D., *Instructor*
THOMAS DEKORNFELD, M.D., *Instructor*

Residents:

- LUCILA P. LESSER, M.D., *Resident*
HEINRICH LOSEMAN, M.D., *Resident*
RONALD E. MENDELSON, M.D., *Resident*
FREDERICK K. TESSIER, D.D.S., *Resident*
CHARLES H. KING, M.D., *Assistant Resident*
PEDRO DEBORJA, M.D., *Assistant Resident*
ESMERALDA A. MERCADO, M.D., *Assistant Resident*
MARTINO M. ALMOGELA, M.D., *Assistant Resident*

Nurses:

- MARY J. O'BRIEN, R.N., *Nurse Anesthetist, Supervisor*
ELIZABETH MASZAROSE, R.N., *Nurse Anesthetist*
CORRINE MOORE, R.N., *Nurse Anesthetist*
CYNTHIA MCNERNEY, R.N., *Nurse Anesthetist*

Dental Residents:

- MCDONALD HAMILTON, D.D.S.
JOHN WELCH, D.D.S.
JOHN BLACK, D.D.S.
JOHN MUELLER, D.D.S.

Surgical Resident:

- FRANCIS ODA, M.D.

Interns:

- JAMES LASTER, M.D.
SELINA S. BAUMGARDNER, M.D.

Laboratory Technician:

- JOSEPH JONES, B.S.

Supply Room Aides:

- MISS ROSALIND WHITE
MRS. ELEANOR CHEEK (Substitute)

Secretaries:

- MRS. DOROTHY FOLEY
MRS. SANDRA PINKNER
MISS ELEANOR CULLEN

The past year has seen considerable change in the personnel of the Department of Anesthesiology. Dr. Howard Liang has gone to join the former department head, Dr. Dodd, in St. Louis. Both Dr. Graff and Dr. Holzworth have left the University Hospital to go into the private practice of Anesthesiology in Baltimore. We were most unhappy to have these two Staff Anesthesiologists leave our Department, but such movement is inevitable so long as the income in private practice is so completely out of proportion to that available to University Staff. Dr. Douglas Smith, the first of our own residents to assume a staff position, was called into the Army as of July and is at present serving as Chief of the Anesthesiology Section at the Army Hospital at Fort Belvoir, Virginia.

Dr. Norman B. Hollingsworth, who was Chief of Anesthesiology at the Carlisle General Hospital, joined our department in July of 1957 and has assumed a major role in clinical service and teaching. Dr. Narcisco Patalinghug joined us in August after completing his Residency at the University of Pennsylvania. Dr. Calbert T. Seebert from the Medical College of Virginia was added to our attending staff in November. The one part-time member of the department, Dr. Thomas DeKornfeld, has added immeasurably to the effectiveness of our teaching program.

The number of residents during the past year was increased to eight and must still expand considerably in order to meet the needs and the requirements of our expanding teaching program as well as the increased clinical case load that will be made available with the opening of the new operating suite.

Two interns and one Surgical Resident elected to take a month of Anesthesiology during the past year. One of the interns has subsequently become a Resident in Anesthesiology for the following year. The presence of the surgical resident on our service has been most rewarding. Certainly, the understanding acquired while on the anesthesia service adds immeasurably to subsequent rapport between the anesthesiologist and the surgeon. Of equal importance is the contribution made by these surgeons to our thinking, especially at our weekly clinical conferences.

The past year has also seen considerable expansion in our activities in affiliated hospitals. The program in thoracic surgery at the Mt. Wilson State Hospital has been enlarged so as to include three days each week. The individual teaching that is available at this institution (one Resident with one Staff Anesthesiologist) is one of the high points in our resident teaching program. Plans are being made for an expanded program which will include surgery other than that for tuberculosis. When this is in effect, the anesthesia program will probably be expanded to a five-day week.

The administration of anesthesia for pediatric orthopedic patients at the Kernan Hospital for Crippled Children continues to be an excellent resident training area. At the present time this activity occupies two days each week. The plastic surgery division at this hospital is another area that would be of more value in the training of residents in anesthesiology. It is hoped that this will be included in our program at the Kernan Hospital during the coming year.

The one month affiliation for each of our senior residents at the Children's Hospital of Philadelphia has been increased to two months. This has certainly more than doubled the value of this part of the residency training. The entire gamut of pediatric anesthesia is made available to our Residents during this affiliation. The excellent close supervision on the part of the attending staff has made it even more valuable.

During the past year the Department was inspected by the American Board of Anesthesiology and was again given approval for a two-year residency program. The wide variety of clinical material available at the University Hospital, the excellent supplementation in certain specific areas that is made available in our affiliated hospitals and the favorable ratio of staff teachers to residents were cited by the inspecting physicians.

DEPARTMENTAL ACTIVITIES

Members of the Department of Anesthesiology participated in the following scientific meetings during the past year:

- American Society of Anesthesiologists, Los Angeles, Calif.
- Post Graduate Assembly, New York, N. Y.
- Association of University Anesthetists, New Orleans, La.
- Post Graduate Medical Seminar, Caribbean Cruise
- Florida State Society of Anesthesiologists, Orlando, Fla.
- Pharmacological & Physiological Advances in Anesthesiology, University of Pennsylvania, Philadelphia, Pa.
- Symposium on Pulmonary Circulation, Chicago, Ill.
- International Anesthesia Research Society, New Orleans, La.
- Management of Mass Casualties, Walter Reed Army Medical Center, Washington, D. C.
- Southern Society of Anesthesiologists, Gatlinburg, Tenn.
- Maryland Association of Nurse Anesthetists, University Hospital, Baltimore I, Md.
- Armed Forces Communication Electronics Association, University Hospital, Baltimore, Md.
- American Society of Nurse Anesthetists, Washington, D. C.
- American Society of Dental Anesthetists, Miami, Fla.

PAPERS OR LECTURES PRESENTED BY MEMBERS OF THE DEPARTMENT OF ANESTHESIOLOGY

Dr. Martin Helrich:

- Addressed staff at City Hospitals on the "Transport of Inert Gases"
- Addressed the Florida State Society of Anesthesiologists on "Hypothermia" at Orlando, Florida
- Addressed the Maryland Association of Nurse Anesthetists on "Pediatric Anesthesia"
- Addressed the Armed Forces Communication Electronics Association on "Servo-Anesthesia During Cardiac Surgery"
- Presented a series of four lectures to the Post Graduate Medical Seminar (Caribbean Cruise) "Hypothermia," "Management of the Comatose Patient," "Anesthesia for Cardiac Surgery," and "The Opiates."
- Presented a series of ten lectures on Anesthesiology at the U. S. Naval Medical Center, Bethesda, Maryland

Dr. Paul R. Hackett:

Participated in a panel on "Halogenated Anesthetic Agents" at the Post Graduate Assembly in Anesthesiology in New York.

Presented a paper to the Southern Society of Anesthesiologists on "Some Electroencephalographic Changes During Complete Circulatory Occlusion" at Gatlinburg, Tennessee.

Addressed the Maryland Association of Nurse Anesthetists on "Pediatric Anesthesia."

Dr. Norman B. Hollingsworth:

Addressed the Maryland Association of Nurse Anesthetists on "Pediatric Anesthesia"

Dr. John R. Marshall:

Addressed the staff at the Mt. Wilson State Hospital on "Anesthesia for Thoracic Surgery."

In addition to the above mentioned presentations, a very successful half-hour program was presented on the TV-MD television show. This session included some of the problems in technics involved in the use of hypothermia. The participants were Dr. Helrich, Dr. Hackett, and Dr. Tesher. Dr. Hackett also presented a half-hour television program in conjunction with the Civilian Aeronautic Patrol on Aviation and Space Physiology.

Two combined meetings were held during the past year. A conference with the Department of Otolaryngology, during which the reactions to local anesthetic agents were considered, proved to be most rewarding. Later in the year a joint meeting with the Department of Obstetrics was held in an effort to discuss some of the mutual problems involved in the administration of obstetrical anesthesia.

Three members of the Department of Anesthesiology, Drs. Helrich, Hackett, and Marshall, attended the course in Medical Electronics presented at the University Hospital by Mr. Morris Tischler. This proved to be a worthwhile experience and will increase the ability of these individuals to use the electronic equipment in the department and aid in the design of future experimentation.

Some effort has been made to assist in the provision of Anesthesia for the training program of the Department of Surgery at the Penitentiary. This has been quite incomplete during the past year both because of the sporadic needs at this institution and the availability of senior anesthesiologists to provide coverage.

Lectures were presented in the Department of Pharmacology and to the senior students in the University of Maryland Dental School as part of their course in Oral Surgery.

Members of the Department of Anesthesiology served as consultants in Anesthesiology:

U. S. Naval Medical Center, Bethesda, Maryland
Veterans Administration Hospital, Fort Howard, Maryland
U. S. Public Health Hospital, Baltimore, Maryland
City Hospitals, Baltimore, Maryland
Spring Grove State Hospital, Catonsville, Maryland

TEACHING PROGRAM

The past fiscal year has seen a marked expansion in the teaching program of the Department of Anesthesiology. The program presented to the senior medical students has been particularly rewarding. Each student now spends two weeks in the operating room as an active member of the Department of Anesthesiology. There is no didactic teaching in the senior year except for informal round table discussions with small student groups. The emphasis has been on the practical, with the actual administration of anesthetics under extremely close staff supervision. Both the instructors and the students have expressed their wholehearted approval of this approach. A serious drawback has been the interruption of each day by the lectures in Dermatology. This has interfered to such an extent that the program is seriously threatened. There is no way of predicting when the cases suitable for student teaching will turn up on the schedule. As a result a student may be scheduled for an excellent teaching case only to have to abandon it and go on to a Dermatology lecture. It is hoped that the Curriculum Committee may make some revision in next year's scheduling so as to permit full time in the operating room for these students.

The lecture program presented to the junior medical students has been enlarged to 11 sessions. The first six of these are of a theoretical nature and attempt to correlate Clinical Anesthesiology with the student's knowledge of Physiology and Pharmacology. The last five lectures which are presented during the last week of school are based primarily on the clinical problems in anesthesia and form a good background for the student's subsequent two weeks in the operating room.

Interns and Residents in Surgery continue to spend a month on Anesthesia on an elective basis.

There has been no change in the didactic program presented to the Residents in Anesthesiology. This consists of three weekly meetings: one dealing almost exclusively with the basic sciences as related to Anesthesiology, a second on current topics of interest and original papers presented by various guest lecturers selected from among the prominent physicians in this area as well as the rest of the country, and finally an hour and a half clinical conference in which the mistakes and problems of the previous week are aired and correlated with current literature.

LECTURE SCHEDULE FOR 1957-1958

Basic Lecture Series for Residents.

Oct. 1	Dr. Hackett	Nerve Block—Anatomy Laboratory
Oct. 8	Dr. Hackett	Nerve Block—Anatomy Laboratory
Oct. 15	Dr. Hackett	Nerve Block—Anatomy Laboratory
Oct. 22	Dr. Hackett	Nerve Block—Anatomy Laboratory
Oct. 29	Dr. Hackett	Nerve Block—Anatomy Laboratory
Nov. 5	Dr. Michael	Anatomy of the Larynx & Related Structures
Nov. 12	Dr. Crosby	C.N.S. Anatomy
Nov. 19	Dr. Cowley	Functional Anatomy of the Lung
Nov. 26	Dr. Spicer	Pulmonary Function, Normal & Abnormal
Dec. 3	Dr. Hackett	Physics of Gases and Anesthesia Machines
Dec. 10		Post Graduate Assembly—New York City

Dec. 17	Dr. Hackett	Body Temperature Control
Dec. 24		Christmas Holiday
Dec. 31		New Year's Holiday
Jan. 7	Dr. Young	Renal Function, Normal & Abnormal
Jan. 14		Equipment Session
Jan. 21	Dr. Helrich	Shock
Jan. 28	Dr. Greisman	Circulation as Related to Anesthesia
Feb. 4	Dr. Hackett	Circulatory Shock
Feb. 11	Dr. Pats	Transfusion & Blood Clotting Mechanisms
Feb. 18	Dr. Helrich	Intubation
Feb. 25	Dr. Hollingsworth	Pre-operative Medication
Mar. 4	Dr. Graff	Ethyl Ether
Mar. 11	Dr. Graff	Vinethene, Trichlorethylene & Chlorinated Compounds
Mar. 18	Dr. Seebert	Nitrous Oxide & Ethylene
Mar. 25	Dr. DeKornfeld	Chloroform
April 1	Dr. Hackett	Intravenous Anesthesia
April 8	Dr. Seebert	Rectal Anesthesia
April 15	Dr. Marshall	Local Anesthesia-Mechanisms & Toxicity
April 22	Dr. Hackett	Epidural Anesthesia
April 29	Dr. Helrich	Spinal Anesthesia
May 6	Dr. DeKornfeld	Neuromuscular Blocking Agents
May 13	Dr. Marshall	Ataractics & Antiemetics & Psychic Energizers
May 20	Dr. Graff	Sympathomimetic Drugs (Vasopressor)

ANESTHESIOLOGY CONFERENCES 1957-1958

Tuesday Evenings—8:00 P. M.

Oct. 8	Dr. DeKornfeld	Anesthesia for Thoracic Surgery
Oct. 15		A.S.A. Convention (Los Angeles)
Oct. 29	Dr. L. Scherlis	Electrocardiography
Nov. 5	Dr. V. Apgar	MSA-Obstetrical Anesthesia
Nov. 12	Dr. Graff	Anesthesia in the Poor Risk Patient
Nov. 19	Dr. Phillips	Spinal Anesthesia
Nov. 26		Joint Anesthesia Study Committee
Dec. 3	Dr. William Howland	MSA-Massive Transfusions
Dec. 10		N. Y. Post Graduate Assembly (N. Y. City)
Dec. 17	Dr. Carson	Fluothane
Dec. 24		Christmas
Dec. 31		New Year's
Jan. 7	Dr. Lamont	MSA-Historical Aspects of Anesthesia
Jan. 14	Dr. Coakley	Circulatory Dynamics
Jan. 21	Drs. Safar, Hackett, Benson	Work in Progress
Jan. 28		Joint Anesthesia Study Committee
Feb. 4	Dr. Eckenhoff	MSA-Opiates
Feb. 11	Dr. Taback	Statistics in Medicine

Feb. 18	Dr. Lasagna	Panel on Opiates
Feb. 25		Joint Anesthesia Study Committee
Mar. 4	Dr. Orkin	MSA-Pentathal & Sedation
Mar. 11	Dr. Safar	Misconceptions About Resuscitation
Mar. 18	Dr. Severinghaus	Hypothermia
Mar. 25		Joint Anesthesia Study Committee
Apr. 1	Dr. Harmel	MSA-Central Action of Muscle Relaxants
Apr. 8	Drs. Hackett, Benson	Extracorporeal Circulation
Apr. 15	Dr. Schnapper	Psychiatric Aspect of Surgical Patients
Apr. 22		Joint Anesthesia Study Committee
Apr. 29	Dr. Nelson	Theories of Narcosis
May 6	Dr. Moersch	MSA-Respirators
May 13	Drs. Wilder, Gonzales, DeKornfeld	Work in Progress
May 20	Dr. Isaacs	Cardiac Resuscitation

The departmental library includes most of the current journals specifically related to Anesthesiology as well as most of the textbooks and monographs. The availability of this reading material in the department has done much to encourage reading and study by the various members of the department while "on-call" at the hospital. It has in no way supplanted the use of the main medical library but has only made available a small morsel of material during those hours when the main library is not available.

NEW EQUIPMENT

The Department of Anesthesiology has been concerned over the apparent lack of attention to explosive hazards in the operating room suite. In an attempt to tighten up the anti-explosion procedure a conductivity meter has been purchased and will be placed at the entrance to the operating corridor. In this way the conductivity of footwear of all people entering the operating room may be tested. The members of the Department of Anesthesiology have been provided with conductive footwear. Once some system of checking can be set up it would be most desirable to have available conductive footwear for all individuals entering the explosion-hazardous area.

Four new anesthesia gas machines have been purchased during the past year. These have been used to replace four older model (cart-type) machines. These older machines have been reconditioned and are being used in the new obstetrical delivery rooms.

An excellent articulated skeleton has been acquired and has aided immeasurably in the teaching of spinal anesthesia and various regional technics. Copying equipment and a Polaroid camera for the preparation of lantern slides have been acquired during the past year. This equipment will certainly supplement to our visual teaching and will find much use in the preparation of papers for publication and lectures to be presented during the coming year.

The McBee punch card system which has been utilized for several years has recently been revised so as to conform more closely with the statistical system in

use by the American Board of Anesthesiology. The new filing system for these punch cards will facilitate the use of this material in clinical research and statistical surveys in the future.

RESEARCH ACTIVITIES

Our research laboratory, which was completed at the end of the last fiscal year, was out of operation for the first nine months of this year because the area was involved in the construction of the new delivery rooms. It has recently been returned to us and has begun functioning actively in the research program. A full-time laboratory technician, Mr. Joseph Jones, was added to the Anesthesia Staff early in the current fiscal year. Mr. Jones has been receiving additional specialized training in the Department of Pulmonary Physiology under the aegis of Dr. Bruce Armstrong. This training has been invaluable for Mr. Jones and will certainly pay great dividends in his present activities in our own departmental laboratory. During the time that he served in Dr. Armstrong's laboratory he also performed all of the laboratory determinations required in our own research program.

Dr. Hackett has been engaged in the study of "Preparation and Anesthesia for Intracranial Surgery in Children Under Sixteen Months of Age" with Dr. Robert Crosby of the Department of Neurosurgery.

Dr. Tesher has devised a modified face mask for use in edentulous patients. This mask has been used with considerable success by various members of the department and the experience with its use has recently been reported in *Anesthesiology*. Dr. Tesher has also been interested in an analgesic-amnesic technic for dental out-patients utilizing nitrous oxide. The latter project has been carried on in collaboration with Dr. Herschel King.

Dr. Helrich has modified a carbon dioxide absorption canister for use in closed system anesthesia. Studies on the efficiency of this canister were carried out by Dr. James Elam of the Rosewell Park Institute in Rochester, New York. A report of the findings in this investigation has been submitted to *Anesthesiology*.

Dr. Seebert in collaboration with Dr. Kurland at the Spring Grove Hospital has been studying some of the problems involved in anesthetizing patients for electroshock therapy.

Dr. Hackett with Dr. Jerome Merlis of the Department of Neurophysiology has been studying the effects of circulatory occlusion and hypothermia on the electroencephlogram. Their findings were recently reported at the meeting of the Southern Society of Anesthesiologists.

Dr. Helrich has been investigating some of the effects of Sernyl, a new compound which has interesting properties. It produces a catatonic-like state in patients and has been used with great success in minor surgical procedures. Whether it will have any widespread use in more extensive surgery has not as yet been determined. A study of the metabolic changes occurring during cerebral anoxia in collaboration with Dr. Samuel Bessman has also been begun.

The monthly meeting of the Joint Anesthesia Study Committee is included as an integral part of the teaching program. During this meeting a careful study is made of all of the deaths related to anesthesia. An unbiased and searching inspection of all of the facets of the case is carried out.

SUMMARY

The fiscal year that has been reported in the foregoing pages has been one of change and expansion. The staff has been strengthening by the addition of several individuals with broad backgrounds in teaching and clinical anesthesiology. The program still suffers in this area from a lack of individuals with research training. A concerted effort has been made to enlist the services of such individuals and positions are available in the Anesthesiology budget. So far, we have been unsuccessful primarily because other institutions are able to offer them more financial return. It is hoped that during the next fiscal year these positions will be filled and our research program will be bolstered.

The resident staff has been expanded to meet the growth of the department and the addition during the current year of two individuals from our own hospital internship program as well as two additional individuals that are graduates of the University of Maryland School of Medicine speaks well for the growing stature of the department.

The teaching program, insofar as the senior medical students are concerned, has been seriously hampered again despite its expansion to two weeks. One must have a full day of undivided activity in the operating room to make the material available to these students and to provide overall continuity. An affiliation with the Veterans Administration Hospital at Fort Howard has been established to supplant the student teaching at Mt. Wilson and Kernan Hospitals. We have tried to utilize the excellent teaching facilities at the Women's Hospital and City Hospitals. These are of maximum effectiveness in our teaching program only if the teaching day is uninterrupted by lectures from other departments. It is hoped that action by the Curriculum Committee will make this uninterrupted time available to us in the coming year.

DEPARTMENT OF BIOCHEMISTRY

STAFF

EMIL G. SCHMIDT,* B.S., M.S., Ph.D., LL.B., *Professor of Biological Chemistry and Head of Department*

EDWARD J. HERBST, B.S., M.S., Ph.D., *Associate Professor of Biological Chemistry*

GUILFORD G. RUDOLPH, B.A., M.S., Ph.D., *Associate Professor of Biological Chemistry*

ARTHUR J. EMERY, JR., B.S., Ph.D., *Assistant Professor of Biological Chemistry*

ANN V. BROWN, A.B., *Instructor in Biological Chemistry*

ARLIE B. PARKER, A.B., *Junior Instructor in Biological Chemistry*

FLO M. COUNCILL, A.B., *Research Assistant in Biological Chemistry*

JOYE L. LINKOUS, *Senior Stenographer*

OPERATING PLAN AND IDEOLOGY

Each faculty member assumed responsibility for teaching in the areas of biochemistry in which his training and research experience were most extensive. Research problems were selected and pursued on an independent basis by each staff member.

Medical Biochemistry

The basic principles of biochemistry were stressed and frequent examples of the application of these principles to the study and treatment of metabolic diseases were included in lectures and laboratory experiments.

Pharmacy Biochemistry

The fundamentals of biochemistry were taught to provide basic knowledge which could be applied by the pharmacy student and pharmacist.

Nursing Biochemistry

A definition of biochemistry was provided by lectures and laboratory with emphasis on principles which would be encountered in hospital work.

TEACHING

Medical students	Biochem. 101	8 credits	110 lectures + 192 hours lab.
Pharmacy students	Biochem. 153	5 credits	64 lectures + 128 hours lab.
Nursing students	Biochem. 1	4 credits	40 lectures + 20 hours lab.
Graduate students	see below		

* Deceased September 25, 1958.

RESEARCH

The following research programs have been conducted during the 1957-1958 fiscal year :

Schmidt, Emil G.—The effect of antibiotics on the products of intestinal putrefaction in the rat and chicken.

Herbst, Edward J.—The physiological function of naturally-occurring polyamines: Polyamine-nucleic acid complexes and the inhibition of nucleases by spermine.

Rudolph, Guilford G.—The metabolism of myo-inositol by secondary sex glands.

Emery, Arthur J., Jr.—The fundamental properties of nucleoprotein complexes and their role in protein synthesis. The role of nucleic acids from tumors as factors in tumor generation.

Research support from granting agencies totaled \$19,339.67.

GRADUATE PROGRAM

Biochem. 206—Enzymes and Metabolism, 3 credits, 48 hours, first semester.

Biochem. 204, 205—Seminar, 1 credit, first and second semester.

Biochem. 203—Research.

In addition to teaching and directing the above courses, the staff supervised six advanced degree candidates majoring in biochemistry and five advanced degree candidates minoring in biochemistry.

STATISTICAL ANALYSIS AND WORK DONE AND SERVICE RENDERED

None.

FACILITIES AND EQUIPMENT

a. Facilities

- 1—student laboratory accommodating 50 students at a time
- 1—research laboratory (capacity four students)
- 1—research laboratory (capacity two students)
- 1—small metabolism and instrument room
- 1—small radioisotope laboratory
- 3—small staff offices
- 1—small office-research laboratory
- 1—stockroom and preparation room
- 1—attic space for bulk storage
- 1—small library-secretary's office

b. Equipment

Usual laboratory and office equipment and following special items :

- Sharples, International, International Refrigerated, and Servall Centrifuges
- Deep freeze, walk-in cold room, walk-in incubator, four small refrigerators
- Evelyn, Klett, and Spectronic 20 photometers
- Sonic disintegrator
- Fraction collector
- Paper electrophoresis cabinets and power supplies

Analytrol
 Marchant calculator
 Analytical and semi-micro balances
 Warburg manometric apparatus
 Dubnoff shaker incubator
 Aminco cold and constant temperature bath
 Radioisotope equipment

COMMUNITY SERVICE

Active participation in local scientific societies including: President, Maryland Society of Bacteriologists; Member, Science-Industry Advisory Committee, Baltimore City Schools; Chairman, Chemical Education Committee, Maryland Section, American Chemical Society.

PUBLICATIONS BY BIOLOGICAL CHEMISTRY STAFF MEMBERS

- HERBST, E. J., WEAVER, R. H., and KEISTER, D. L.: The Gram Reaction and Cell Composition: Diamines and Polyamines, *Arch. Biochem. Biophys.* **75**:171, 1958.
- HERBST, E. J., KEISTER, D. L. and WEAVER, R. H.: The Separation of Aliphatic Amines by Paper Chromatography or Paper Electrophoresis, *Arch. Biochem. Biophys.* **75**:178, 1958.
- WEAVER, R. H. and HERBST, E. J.: Metabolism of Diamines and Polyamines in Microorganisms, *J. Biol. Chem.* **231**:637, 1958.
- WEAVER, R. H. and HERBST, E. J.: The Oxidation of Polyamines by *Neisseria perflava*, *J. Biol. Chem.* **231**:647, 1958.
- DOCTOR, B. P. and HERBST, E. J.: Inhibition of Nucleic Acid Degradation in Bacteria by Spermine, *Fed. Proc.* **17**:212, 1958.
- KEISTER, D. L.: Occurrence and Properties of Nucleic Acid-Amine Complexes, *Fed. Proc.* **17**:84, 1958.
- GOLLAN, F., RUDOLPH, G. G. and OLSEN, N. S.: Electrolyte Transfer During Hypothermia and Anoxia in Dogs, *Am. J. Physiol.* **189**:277, 1957.
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RECOMMENDATIONS FOR IMPROVEMENT

a. The staff of this department must be increased to provide sufficient teaching, research, and service personnel for a balanced biochemistry program for undergraduate and graduate students. Specifically, a Public Health Service Senior Research Fellow with training in biochemical genetics and cytogenetics should be obtained immediately to fill a pressing need for research and teaching in this area. The existing space, though very, very limited, could be adapted on a temporary basis to the requirements of this fellow. A full-time assistant professor should be added to the staff, in addition to the Senior Research Fellow, to relieve the excessive teaching load of the present staff, to provide additional specialized experience in the

area of lipides and lipide metabolism, and to help in the overall expansion of the participation of biochemists in all programs of the medical school. New space, through either new construction, remodeling of the attic space in the present building, or an addition to the present building, must be provided before the latter position can be filled.

b. The construction of a new basic science building providing reasonable space and facilities for biochemistry and other basic science departments is strongly recommended. Such construction should not be delayed since, if new facilities are not provided, the expansion of medical education and research in biochemistry at this school will be severely curtailed.

c. A central still with a suitable installation to provide high quality distilled water in all research and student laboratories should be obtained.

d. The lecture hall (Administration Building I) used for biochemistry lectures is unsatisfactory and should be remodeled to provide better lighting, seating, temperature control, acoustics, and blackboard space.

DEPARTMENT OF MEDICINE

STAFF

Faculty members of the Department of Medicine not listed in sub-specialty divisions are recorded in this section.

THEODORE E. WOODWARD B.S., M.D., *Professor of Medicine and Head of the Department*

WALTER A. ANDERSON, M.D., *Assistant in Medicine*

EDMUND G. BEACHAM, B.S., M.D., *Assistant Professor in Medicine*

GEORGE BECK, A.B., M.D., *Assistant in Medicine*

BARNETT BERMAN, B.S., B.M., M.D., *Assistant in Medicine*

HOWARD M. BUBERT, M.D., *Associate Professor of Medicine*

BERNARD BURGIN, B.A., M.D., *Instructor in Medicine*

T. NELSON CAREY, M.D., *Professor of Clinical Medicine*

DOUGLAS G. CARROLL, JR., A.B., M.D., *Assistant Professor of Medicine*

FRANCIS P. CHINARD, A.B., M.D., *Assistant Professor of Medicine*

B. STANLEY COHEN, M.D., *Instructor in Medicine*

ELMER E. COOK, JR., B.A., M.D., *Assistant in Medicine*

EDWARD F. COTTER, M.D., *Associate Professor of Medicine*

ERNEST CROSS, JR., A.B., M.D., *Instructor in Medicine.*

JOHN R. DAVIS, B.A., M.D., *Instructor in Medicine*

JOHN S. EASTLAND, A.B., M.D., *Associate Professor of Medicine*

BENNETT L. ELISBERG, B.A., M.S., M.D., *Instructor in Experimental Medicine*

PATRICIA A. ELISBERG, B.A., M.D., *Assistant Instructor in Experimental Medicine*

WILLIAM L. FEARING, M.D., *Associate in Neurology*

MAURICE FELDMAN, JR., B.A., M.D., *Instructor in Medicine*

PHILIP D. FLYNN, B.S., M.D., *Instructor in Medicine*

WETHERBEE FORT, M.D., *Assistant Professor of Medicine*

IRVING FREEMAN, B.S., M.D., *Assistant Professor of Medicine*

FRANK J. GERAGHTY, B.A., M.D., *Assistant Professor of Medicine*

MARVIN GOLDSTEIN, A.B., M.D., *Instructor in Medicine*

WILLIAM H. GRENZER, A.B., M.D., *Assistant in Medicine*

SAMUEL J. HANKIN, M.D., *Instructor in Medicine*

W. GRAFTON HERSPERGER, A.B., M.D., *Associate in Medicine*

HENRY W. J. HOLLJES, A.B., M.D., *Associate in Medicine*

MEYER W. JACOBSEN, A.B., M.D., *Assistant Professor in Medicine*

EDWARD S. KALLINS, Ph.G., B.S., M.D., *Instructor in Medicine*

WILLIAM H. KAMMER, JR., B.S., M.D., *Instructor in Medicine*

ARTHUR KARFGIN, B.S., M.D., *Associate in Medicine*

JAMES R. KARNS, B.S., M.D., *Assistant Professor of Medicine and Head Student Health Service*

FRANK T. KASIK, JR., B.S., M.D., *Assistant in Medicine*

IRVIN B. KEMICK, Ph.G., B.S., M.D., *Instructor in Medicine*

LAURISTON L. KEOWN, B.A., M.D., *Instructor in Medicine*

JOSEPH D. KING, A.B., M.D., *Instructor in Medicine*

CRAWFORD N. KIRKPATRICK, JR., A.B., M.D., *Instructor in Medicine*

LOUIS A. M. KRAUSE, M.D., *Professor of Clinical Medicine*

SAMUEL LEGUM, A.B., M.D., *Assistant Professor of Medicine*

FRANKLIN E. LESLIE, M.D., *Instructor in Medicine*

MANUEL LEVIN, A.B., M.D., *Instructor in Medicine*

EPHRAIM T. LISANSKY, B.A., M.D., *Associate Professor of Medicine*

LEONARD LISTER, M.D., *Instructor in Medicine*

S. J. LIU, M.D., *Instructor in Medicine* (leave of absence)

ROBERT J. LYDEN, M.D., *Assistant in Medicine*

JOHN MACGIBBON, M.D., *Assistant in Medicine*

STEPHEN L. MAGNESS, A.B., M.D., *Assistant in Medicine*

JAMES T. MARSH, A.B., M.D., *Lecturer in Medicine*

JOSEPH C. MATCHAR, A.B., M.D., *Instructor in Medicine*

GEORGE MCLEAN, M.D., *Assistant Professor of Medicine*

ROSS MCLEAN, B.S., M.D., *Assistant Professor of Medicine*

GEORGE S. MIRICK, A.B., M.D., *Assistant Professor of Medicine*

S. EDWIN MULLER, M.D., *Assistant Professor of Medicine*

JOSEPH C. MYERS, A.B., M.D., *Assistant in Medicine*

JOHN C. OSBORNE, B.S., M.D., *Instructor in Medicine*

MARIO E. PARADIS, B.Sc., M.D., *Assistant in Medicine*

H. RAYMOND PETERS, A.B., M.D., *Professor of Clinical Medicine*

MAURICE C. PINCOFFS, B.S., M.D., *Professor of Medicine*

J. EMMETT QUEEN, A.B., M.D., *Associate in Medicine*

M. KEVIN QUINN, M.D., *Assistant in Medicine*

RAYMOND RANDALL, D.V.M., *Associate Professor of Clinical Investigation*

JULIAN REED, B.S., M.D., *Instructor in Medicine*

ROBERT A. REITER, A.B., M.D., *Assistant Professor of Medicine*

DONALD J. ROOP, B.A., M.D., M.P.H., *Assistant in Medicine*

BENJAMIN ROTHFELD, B.A., M.S., M.D., *Assistant in Medicine*

HERMAN SCHAEFER, M.D., *Assistant in Medicine*

ADALBERT SCHUBART, M.D., *Assistant in Medicine*

HARRY B. SCOTT, B.A., M.D., *Instructor in Medicine*

SAMUEL SEGALL, M.D., *Assistant in Medicine*

LAWRENCE M. SERRA, Ph.G., M.D., *Assistant Professor of Medicine*

CHARLES E. SHAW, B.S., M.D., *Associate in Medicine*

JEROME SHERMAN, M.D., *Associate in Medicine*

MARGARET L. SHERRARD, B.A., M.D., *Assistant in Medicine*

ELIZABETH B. SHERRILL, B.S., M.D., *Instructor in Medicine*

SOLOMON SMITH, A.B., M.D., *Assistant Professor of Medicine*

VERNON SMITH, M.D., *Associate in Medicine*

WILLIAM H. SMITH, M.D., *Associate Professor of Clinical Medicine*

WILLIAM C. SPEED, III, B.S., M.D., *Instructor in Medicine*
JOE L. STOCKARD, B.S., M.D., *Associate in Medicine*
PATRICK B. STOREY, M.D., *Assistant Professor of Medicine*
FREDERICK J. VOLLMER, B.S., M.D., *Instructor in Medicine*
JULIUS WAGHELSTEIN, B.S., M.D., *Instructor in Medicine*.
PHILIP WHITTLESEY, A.B., M.D., *Instructor in Medicine*
DANIEL J. WILFSON, A.B., M.D., *Associate in Medicine*
JOHN G. WISWELL, B.A., B.S., M.D., C.M., *Assistant Professor of Medicine*
THOMAS L. WORSLEY, JR., B.S., M.D., *Assistant in Medicine*

GRANTS-IN-AID 1957-1958

There are no specific grants-in-aid awarded to the department as such. The research and educational funds available to the department are shown in the respective subdivisions.

CURRICULAR ACTIVITIES

Various department members contributed to the first year curriculum through participation in the course "Man and His Environment" and by presentation of lectures during the Freshman orientation program. Lectures and demonstrations were presented to the classes in Physiology and Anatomy.

The Sophomore course in Physical Diagnosis provides the student bedside instruction with small tutorial groups assigned to a capable instructor. On a trial basis, certain students were assigned patients on the medical wards for history taking and physical examination. Bedside presentation of case material was stressed. The exercises were productive since they permitted the teaching of elementary Clinical Medicine simultaneously with Physical Diagnosis. The teaching in Neurology stresses lectures in diagnosis with correlation of Anatomy and Physiology of the nervous system. Opportunities for case demonstrations will be utilized when possible.

A limited number of lectures on general medical topics are presented to the Junior class. More didactic presentations are desirable and approximately 30 lectures are contemplated on specific medical syndromes, with special reference to pathologic-physiologic considerations in health and disease. The student is encouraged to supplement knowledge gained from lectures and ward work through reading the standard texts and the pertinent medical literature. Bibliographic lists are provided. The Junior Clerkship in Medicine emphasizes bedside medicine with attending physicians and resident-staff serving as a working team. Students are expected to complete a library assignment and report subject material extemporaneously to a group during their medical tour. Case presentations and expressions of independent thought on the part of the student is encouraged. The method of appraisal of a student's aptitude is through daily conferences and an informal oral session with a staff physician. At this conference, the student's knowledge of basic science and his ability to correlate this knowledge with clinical medicine is assessed. There are no written examinations in general medicine as such.

The Senior participates as student physician in the out-patient clinic for four weeks. In this clinic, the student has responsibility for the work-up of new and returning patients under appropriate supervision. The home care program permits

the student to experience home practice and to attend patients with acute and chronic illness in the home. Instruction in the social aspects of medical care in the home is supervised by the Department of Preventive Medicine and Rehabilitation. The subspecialty clinics provide instruction and patient responsibility in each specific discipline of medicine.

For several years, the senior student has served as a medical intern on the wards of the University and Mercy Hospitals. The experience has been valuable since the student intern discharges the responsibilities expected of a regular intern. Considerable practical experience is gained, the ward responsibilities for each team member is clarified and there is appropriate supervision. The program succeeds only when there is an adequate and interested attending physician and a capable resident staff.

The department hopes to encourage summer assignments in Medicine with emphasis on ward work, clinic experience and guided reading. Successful completion of this selective program would permit selected students to elect an honor program and conduct independent research in Medicine during the senior year.

A special lecture series on Pathologic-Physiology, therapeutics and diseases of global significance was given to the Senior class and interested house staff during the second semester.

Approximately 13 students hold training and research fellowships in Medicine during the summer months. There is active participation in all of the subspecialty programs and independent or collaborative research is encouraged.

EXTRA-CURRICULAR PROGRAMS AND DEPARTMENTAL NEWS ITEMS

Faculty members have participated actively in medical and civic functions throughout the state and nation. Some of these educational activities are cited later in this report and in respective divisions. Department members lecture in the Basic Science Course sponsored by the Post-Graduate Committee. Plans are underway for a formal refresher course in Medicine which will provide three days' sessions in General Medicine and medical specialties with emphasis on current trends in diagnosis and management. Visiting speakers of outstanding ability, panel discussions, case presentations, and an evening social function will feature these meetings which are contemplated on a semi-annual basis.

Several lectureships were inaugurated during the current year. The first Pincoffs lecture, honoring the school's distinguished clinician, was given on December 14, 1957 by Dr. Joseph E. Smadel, an outstanding scientist and Associate Director of the National Institutes of Health. The subject of Dr. Smadel's lecture was "Quo Vadis Rickettsioses" which was particularly fitting since Dr. Pincoffs' early contributions called attention to the prevalence of Rocky Mountain spotted fever in Maryland. The lecture was attended by approximately 250 students, physicians and scientists of Baltimore and Washington. It was a scholarly review of the present status of the rickettsioses and a philosophical discussion of the rickettsial diseases as a local and global problem.

On March 13, 1958, the first Alice Messenger Band Memorial Lecture in Hematology was given by Dr. Lawrence E. Young, Professor and Head of the Department of Medicine, School of Medicine, University of Rochester. The subject of Dr. Young's excellent lecture was "Some Newer Concepts of Hemolytic Disorders." The

lectureship was established by faculty and friends in memory of Dr. Alice Band following her untimely death in 1957 at the age of 31 years.

Dr. Ephraim Lisansky arranged and directed a Post-Graduate Course in Psychiatry and Psychosomatic Medicine. This course was given at the University Hospital Psychiatric Institute with the participating members utilizing selected patients on the medical wards of the hospital. This course was sponsored by the Baltimore Psychoanalytic Society under the auspices of the United States Health Service and was held from June 9 through 12, 1958.

Recent residents in Medicine hold responsible academic positions in medical departments throughout the country. Dr. Howard Raskin is Assistant Professor of Medicine, School of Medicine, University of Chicago. Dr. Raskin is a senior member of Dr. Walter Palmer's Department of Gastroenterology and is in charge of the cytologic laboratory. He is supervising an active investigation program. Dr. David M. Kipnis is a Markle Scholar in Medicine, with the faculty rank of Assistant Professor of Medicine, Department of Medicine, School of Medicine, Washington University, St. Louis, Mo. Dr. Kipnis continues his metabolic studies which deal principally with problems of carbohydrate metabolism and mechanism of action of insulin. Dr. William S. Spicer, following his training as an American College of Physicians Fellow under Dr. Julius Comro, University of Pennsylvania, came to the University of Maryland where he has organized a teaching and investigative program in chest diseases. Dr. Adalbert Schubart was appointed a Research Fellow in Medicine in Rheumatic Diseases at the Massachusetts General Hospital, Boston, Massachusetts on the service of Dr. Walter Bauer. Dr. Schubart has undertaken an intensive investigative program dealing with the serologic diagnosis of rheumatic diseases. He will return to Baltimore and direct the activities of the medical out-patient department in 1958.

Dr. George Entwisle, Assistant Professor of Medicine and Head of the medical out-patient department, was appointed by the President and Board of Regents as Professor and Head of the Department of Preventive Medicine and Rehabilitation to assume his new duties July 1, 1958. It is hoped that Dr. Entwisle will find time to continue his interest and participation in the activities of the Department of Medicine.

Dr. Luis Lombardo, Associate in Neurology for approximately three years, returned to his native Mexico in June 1958 to undertake academic duties and to practice neurology. His outstanding ability as a teacher of neurology will not be forgotten.

Dr. Robert E. Bauer, Assistant Professor of Medicine, left Baltimore in January 1958 to establish a practice of internal medicine at Miami Beach, Florida and to undertake studies in radioisotopes. Dr. Bauer was associated with the Department of Medicine for 12 years and at the time of his departure was Co-director of the Division of Radioisotopes which he had a large part in organizing. His research interests were concerned principally with the effect of radioactive isotopes in the control of malignant effusions and the relationship of host resistance on the irradiated animal.

Dr. Francis J. Borges, Assistant Professor of Medicine, was made Head of the Artificial Kidney Unit which was recently installed on the third floor. The dialysis unit and its supporting laboratory were procured largely through the initiative of

Dr. Samuel T. R. Revell, Jr., with generous administrative support. A committee consisting of representatives from the Departments of Surgery and Pediatrics will collaborate in the activities of this unit.

Dr. Vernon G. Smith, Associate in Medicine, joined the Department of Medicine following an extended tour of duty in the United States Army. Dr. Smith is participating with Dr. Ebeling in the activities of the Division of Gastroenterology primarily and attends on the wards and in the medical clinic. He plans to establish his medical practice in the Towson area.

Two senior members of the department, Dr. Ephraim T. Lisansky, Associate Professor of Medicine, and Dr. James A. Karns, Assistant Professor of Medicine, were elected to fellowship in the American College of Physicians in April, 1958. Dr. Francis Borges and Dr. Sheldon Greisman completed successfully their certifying examinations for the American Board of Internal Medicine.

RESEARCH ACTIVITIES

Research programs of the department are described in the respective subdivisions of Medicine. A few general statements will be presented in this section.

The resident staff has been active in clinical and laboratory studies. Dr. Joseph E. Fitzgerald continued his investigations with Dr. Bessman which indicate that insulin has an action both at the cell membrane level and intracellularly. Dr. Ralph Gorten, Assistant Resident in Medicine, participated in an electrocardiographic clinical study which demonstrated that atrioventricular dissociation occurs with synchronization. Dr. Donald Dembo, Assistant Resident in Medicine, working in collaboration with Dr. Callaway of the Department of Psychiatry, observed in a clinical study that perception is narrowed under conditions of physiologic change. Dr. William Cohen completed a case study of a patient with diabetic neuropathy who manifested extreme changes referable to the autonomic nervous system.

An active program for the study of problems of immunity in certain infectious diseases including tularemia is being conducted by the infectious disease group under sponsorship of the Commission of Immunization of the Armed Forces Epidemiological Board. Dr. Woodward became a member of the Board of Scientific Counselors of the Division of Biologic Standards of the Public Health Service. One of the developments of this association is a program to study measles virus in tissue culture and serologic diagnosis. Dr. Fred R. McCrumb, Jr. and Dr. Merrill J. Snyder and staff are conducting these preliminary studies as a prelude to a trial in children to appraise killed and attenuated measles vaccines.

Dr. Sheldon Greisman, Associate in Medicine, has continued his studies on the effect of microbial toxins in the circulatory system, working in collaboration with Dr. Charles Wisseman, Professor and Head of the Department of Microbiology. Dr. Greisman's studies, with the surgical department, on hemorrhagic shock have been extended with observations on the relation of bacterial endotoxins in the pathogenesis of this form of shock.

Dr. John G. Wiswell, Assistant Professor of Medicine, continued his studies on mechanisms of action of thyroid hormone and demonstrated, along with others, that magnesium inhibited its action when tested under in vitro conditions. These observations have been extended to studies in patients with thyroid disease.

PUBLICATIONS BY MEDICINE STAFF MEMBERS

Other bibliography shown in reports of respective subdivisions of department. These publications are dated from July 1, 1957-1958.

- KRAUSE, L.: Old Age through the Ages, Maryland M. J. 6:11, Nov. 1957.
- LISANSKY, E. T.: The Eradication of Malaria in the U. S. A. Editorial, Ann. Int. Med., Feb. 1958.
- GREISMAN, S. E.: Capillary Observations in Patients with Hemorrhagic Fever and other Infectious Illnesses, J. Clin. Invest. 36:1688, 1957.
- GREISMAN, S. E. and WISSEMAN, JR., C. L.: Cardiovascular Dysfunction during Rickettsial Toxemia (Abs.). Program of the Fiftieth Annual Meeting of the Am. Soc. Clin. Invest., 28, 1958.
- PETERS, H. R. and ENSOR, R. E.: Experience with the Anticoagulant, Marcumar. Ann. Int. Med. 47:4, Oct. 1957.
- PETERS, H. R.: History of the Department of Medicine, Mercy Hospital, Maryland M. J. 6:3, March 1957.
- PETERS, H. R.: Loss of Consciousness in a Male when Standing Urinating. Editorial answer: Queries and Minor Notes: J.A.M.A., Jan. 1958.
- PETERS, H. R.: Book Review: Systemic Arterial Embolism: Pathogenesis and Prophylaxis by John Martin Askey, M.D. Modern Medical Monographs, #14. Ann. Int. Med., Jan. 1958.
- WISWELL, J. G. and BRAVERMAN, M. G.: The Effects of Thyroxine and Certain Metal Ions upon Oxidation and Phosphorylation in Vitro, Endocrinology 61:153, 1957.
- WISWELL, J. G., THOMAS, JR., W. C., CONNOR, T. B. and HOWARD, J. E.: Hypercalcemic Crisis Due to Hyperparathyroidism, Am. J. Med. 24:229, 1958.
- WISWELL, J. G., PLAMONDON, C. A., SELENKOW, H. A. and ASPER, JR., S. P.: Studies of Thyroxine and Some of its Analogues: II. The Antigoitrogenic Properties of Rhytoxine and Triiodothyronine, Bull. Johns Hopkins Hosp. 102:88, 1958.
- WISWELL, J. G., SELENKOW, H. A., PLAMONDON, C. A. and ASPER, JR., S. P.: Studies of Thyroxine and Some of its Analogues. III. The Antigoitrogenic Properties of Several Analogues of Thyroxine, Bull. Johns Hopkins Hosp. 102:94, 1958.
- PLAMONDON, C. A., WISWELL, J. G. and ASPER, JR., S. P.: Studies of Thyroxine and Some of its Analogues. IV. The Metabolic Activity of 2' 6'-diiodothyronine, Bull. Johns Hopkins Hosp. 102:107, 1958.
- WISWELL, J. G. and ASPER, JR., S. P.: Studies of Thyroxine and Some of its Analogues. V. Metabolic Activity in Vitro and in Vivo of the Acetic Acid Analogues of Triiodothyronine and Thyroxine, Bull. Johns Hopkins Hosp. 102:115, 1958.
- STOCKARD, J. L. and WOODWARD, T. E.: Leptospirosis: Infections in Man, Vet. Med. 52:548, Nov. 1957.
- ROGERS, D. E., CHAVES, A. D., KILBOURNE, E. D., THOMPSETT, R. T. and WOODWARD, T. E.: Therapy of Infections. Transcriptions of a panel meeting, Bull. New York Acad. Med. 34:109, Feb. 1958.
- WOODWARD, T. E., WISSEMAN, C., ENTWISLE, G., MCCRUMB, F., ROBINSON, JR., H. M., and SNYDER, M. J.: Monograph on Chloramphenicol, MD Publications.
- WOODWARD, T. E. and SMADEL, J. E.: Chapter on Rickettsial Infections, Principles of Internal Medicine. Harrison's textbook, 1020-1038, ed. 3, New York, McGraw-Hill, 1958.
- COHEN, WM. C.: Severe Diabetic Neuropathy: A Case Study with Special Reference to the Autonomic Nervous System. (To be published.)
- BESSMAN, S., BACHUR, N., LAYNE, E. C. and FITZGERALD, J.: Mechanism of Action of Insulin Metabolism, Fed. Proc. 17: part I, 746, March 1958.
- FITZGERALD, J. C., SINGLETON, R. T. and SNYDER, M.: Salmonella Choleraesuis Meningitis: An Unusual Case with Cure Following Surgical Excision of an Infected Subarachnoid Cyst, to be published in Ann. Int. Med.
- MARRIOTT, H. J. L., SCHUBART, A. F. and GORTEN, R.: Isorhythmic Dissociation-Atrioventricular Dissociation with Synchronization, Am. J. Med. 24:209, 1958.
- CALLAWAY, III, E. and DEMBO, D.: Narrowed Attention: A Psychological Phenomenon that Accompanies a Certain Physiological Change, A. M. A. Arch. Neurol. and Psychiat. 79:74, Jan. 1958.

EDUCATIONAL ACTIVITIES

1957

July	WOODWARD, T. E.	Consultant for Surgeon-General of Army to European Theater. Series of lectures and clinics in U. S. Army Hospitals, France and Germany
	KRAUSE, L.	Relationship of Religion and Medicine, WMAR Television, Baltimore, Md.
September	WOODWARD, T. E.	Leptospirosis: Infections in Man, N. Y. Academy of Sciences Conference on "Animal Disease and Human Health," New York City
	KRAUSE, L.	Peripheral Vascular Disease, Eastern Panhandle Medical Society, Martinsburg, W. Va.
	GREISMAN, S.	"Use of Vasopressor Drugs in the Treatment of Shock," Maryland General Hospital, Baltimore; Medical Staff meeting
	FORT, W.	"Panel Discussion on Meeting the Religious Needs of the Patient," Union Memorial Hospital, Baltimore
October	WOODWARD, T. E.	The Role of Drugs and Common Sense in the Management of Infections, Founder's Day, Greenville General Hospital, Greenville, S. C.
	WOODWARD, T. E.	The Nature of Some Infections and Their Management, American College of Physicians Regional Meeting, Medical College of Virginia, Richmond, Va.
	LISANSKY, E. T.	Psychosomatic Medicine, University of Maryland Law students, University of Maryland
	KRAUSE, L.	Peripheral Vascular Changes in Diabetes, Clinical Society, New York Diabetes Association, New York, N. Y.
	WOODWARD, T. E.	Leptospirosis: Typical and Atypical Features, Richmond, Va.
	KRAUSE, L.	Physical Examination of the Hand, Springlake Medical Society, Springlake, N. J.
	WOODWARD, T. E.	What is a Hospital? Carroll County Hospital Volunteers' Kick-Off Drive, Westminster, Md.
	WOODWARD, T. E.	Rickettsioses, Seton Hall Medical School, Lecture to Sophomore Class, Jersey City, N. J.
November	GREISMAN, S.	The Action of Rickettsial Toxin and Bacterial Endotoxin on the Peripheral Vascular System, Regional Meeting, Maryland and District of Columbia, American College of Physicians
	GREISMAN, S.	Physiologic Basis of Shock, St. Agnes Hospital, Baltimore; Medical staff meeting
	LISANSKY, E. T.	Scientific address on the Relationship between Sociology, Psychiatry, and Internal Medicine to the Veterans Hospital personnel, Lebanon, Pa.

December	WOODWARD, T. E.	Meningitis, MEND Conference, Georgetown Medical Center, Washington, D. C.
	WOODWARD, T. E.	Clinic on Infectious Diseases, D. C. General Hospital, Washington, D. C.
	KRAUSE, L.	Value of Physical Examination in Medical Practice, Delaware Academy of General Practitioners, Wilmington, Del.
	FORT, W.	Moderator on subject of Hereditary, Racial and Sex Factors, Doctors Hospital, Postgraduate Institute, 12th Session, University of Maryland Medical School

1958

January	WOODWARD, T. E.	Principals of Antibiotic Therapy, Army Medical Service, Graduate School Refresher Course, Washington, D. C.
	LISANSKY, E. T.	Lecture on Psychosomatic Medicine, Enoch Pratt Library, Baltimore
February	LISANSKY, E. T.	Lecture on Anorexia Nervosa, Maryland Association of Private Practicing Psychiatrists
March	WOODWARD, T. E.	Panel Discussion—What's New in Medicine? Baltimore City Medical Society — Monthly Meeting
	WOODWARD, T. E.	Dramatic Cures and Treatment Failures in Acute Infectious Diseases, Michigan Clinical Institute, Michigan State Medical Society, Detroit, Mich.
	WOODWARD, T. E.	Annual meeting of Commission of Immunization (2 days), Armed Forces Epidemiology Board, Washington, D. C.
	WOODWARD, T. E.	Commission on Rickettsial Diseases, Armed Forces Epidemiology Board, Washington, D. C.
	LISANSKY, E. T.	Lecture on Psychosomatic Medicine, Postgraduate Assembly
	LISANSKY, E. T.	Lecture to the Women's Auxiliary of the Baltimore Medical Society at the Johns Hopkins Faculty Club
	GREISMAN, S.	Cardiovascular Alterations Induced by Rickettsial Toxin and Bacterial Endotoxin, Rickettsial Commission Meeting, Walter Reed Medical Center, Washington, D. C.
	KRAUSE, L.	Medicine and Religion, WBAL Television, Baltimore
April	WOODWARD, T. E.	Commission on Epidemiological Survey (2 days), Armed Forces Epidemiology Board, Washington, D. C.

	WOODWARD, T. E.	Immunity in Infections, Conference on Infectious Diseases, Johns Hopkins Hospital, Baltimore, Md.
	WOODWARD, T. E.	Specific and Non-Specific Therapy of Acute Infections, Round Table Discussion, Annual Meeting of Medical and Chirurgical Society, Baltimore, Md.
	WISWELL, J. G.	Moderator of Round Table Discussion on the Thyroid, Meeting of Medical and Chirurgical Faculty of State of Maryland, Baltimore
	GREISMAN, S.	Cardiovascular Effects of Rickettsial Toxin and Bacterial Endotoxin; Relation of Bacterial Endotoxin to Irreversible Hemorrhagic Shock, Johns Hopkins Hospital, Baltimore; Medical and Microbiological staff conference
May	WOODWARD, T. E.	Panel Discussion—Newer Agents for the Treatment of Infections, annual meeting, American College of Physicians, Atlantic City, N. J.
	WOODWARD, T. E.	Clinical Pathological Conference, Sibley Hospital, annual meeting, Washington, D. C.
	KRAUSE, L.	Examination of the Hand. Television, American College of Physicians, Atlantic City, N. J.
	GREISMAN, S.	Peripheral Vascular Disease. Provident Hospital, Baltimore, Md., Medical Staff Meeting
June	WOODWARD, T. E.	Current Problems of Interest in Infectious Diseases, 43rd Session of Trudeau School of Tuberculosis, Saranac, N. Y.
	WOODWARD, T. E.	The Nature of the Inflammatory Reaction including Focal Infections. Graduate Course in Dental Surgery, University of Pennsylvania, Philadelphia, Pa.
	WOODWARD, T. E.	Antibiotic Therapy with a Discussion of Limitations. Graduate Course in Dental Surgery, University of Pennsylvania, Philadelphia, Pa.
	GREISMAN, S.	Relation of Hepatic Blood Flow to Clinical Aspects of Liver Disease. Veterans Hospital, Sparrows Point, Md. Medical staff meeting

DIVISION OF ARTHRITIS

STAFF

HENRY J. L. MARRIOTT, M.A., B.M., B.Ch., *Associate Professor of Medicine and Head of the Division of Arthritis*

LEON A. KOCHMAN, M.D., *Director of Arthritis Clinic, OPD*

ADALBERT F. SCHUBART, M.D., *Trainee on leave of absence at Massachusetts General Hospital*

And STAFF.

GRANTS-IN-AID

Public Health Service: \$13,750.00.

Arthritis and Rheumatism Foundation: \$5,000.00.

CURRICULAR ACTIVITIES

Outpatient instruction to assigned fourth year students.

Weekly seminars in rheumatic diseases for assigned fourth year students.

Weekly consultative ward rounds.

Participation in seminars, departmental, and inter-departmental.

RESEARCH ACTIVITIES

Preliminary evaluation of bentonite flocculation tests in diagnosis of rheumatoid arthritis.

Continuing study on relation of blood groups to rheumatic diseases.

Preliminary investigation of flexin in the treatment of gout.

PUBLICATIONS BY DIVISION OF ARTHRITIS STAFF MEMBERS

Book:

MARRIOTT, H. J. L.: Practical Electrocardiography, ed. 2, Baltimore, Williams & Wilkins Co., 1957.

Articles:

MARRIOTT, H. J. L.: Cholericformic Monster, New England J. Med. 255:907, 1956.

MARRIOTT, H. J. L.: Atrioventricular Synchronization and Accrochage, Circulation 14:38, 1956.

MARRIOTT, H. J. L. and BRADLEY, S. M.: Intra-atrial Block, Circulation 14:1073, 1956.

MARRIOTT, H. J. L. and BRADLEY, S. M.: Main-stem Extrasystoles, Circulation 16:544, 1957.

MARRIOTT, H. J. L.: An Alarming Reaction to Regitine, Ann. Int. Med. 46:1001, 1957.

MARRIOTT, H. J. L.: Interactions Between Atria and Ventricles During Interference-dissociation and Complete A-V Block, Am. Heart J. 53:884, 1957.

MARRIOTT, H. J. L., DIETZ, G. W., FLETCHER, E. and BELLET, S.: Atrial Dissociation and Unilateral Fibrillation, Circulation 15:883, 1957.

SCHUBART, A. F., MARRIOTT, H. J. L. and GORTEN, R. J.: Isorhythmic Dissociation, Am. J. Med. 24:200, 1958.

MARRIOTT, H. J. L. and BRADLEY, S. M.: Escape-capture Bigeminy, Am. J. Cardiol. 1:640, 1958.

EDUCATIONAL ACTIVITIES

Nurses from St. Agnes and Lutheran Hospitals regularly attend Outpatient Clinic for instruction in Arthritis.

Nov. 13, 1958	HENRY J. L. MARRIOTT	"Electrocardiographogenic Disease," and "The Paroxysmal Tachycardias," Eastern Panhandle Medical Society, Shepherdstown, W. Va.
Feb. 9, 1958	HENRY J. L. MARRIOTT	"Cardiac Sounds and Murmurs," Chapter of A.A.G.P., Wilmington, Del.
Mar. 1, 1958	HENRY J. L. MARRIOTT	"A Physician's Philosophy," Dickeyville Forum
Mar. 25, 1958	HENRY J. L. MARRIOTT	"Cardiac Arrhythmias," St. Agnes Hospital, Baltimore

May 25, 1958 HENRY J. L. MARRIOTT "Sins in Writing," American Association of Medical Writers, Washington, D. C.

DIVISION OF CARDIOLOGY

STAFF

LEONARD SCHERLIS, A.B., M.D., *Head, Division of Cardiology; Assistant Professor of Medicine*

WILLIAM S. LOVE, A.B., M.D., *Professor of Clinical Medicine*

C. EDWARD LEACH, M.D., *Assistant Professor of Medicine; Chief, Adult Cardiology Outpatient Clinic*

SIDNEY SCHERLIS, B.A., M.D., *Assistant Professor of Medicine; Chief, Pediatric Cardiology Outpatient Clinic*

WILFRED H. TOWNSHEND, A.B., M.D., *Associate in Medicine*

STEPHEN J. VANLILL, III, B.A., M.D., *Associate in Medicine*

KYLE Y. SWISHER, M.D., *Associate in Medicine*

AUBREY RICHARDSON, M.D., *Associate in Medicine*

LUIS F. GONZALEZ, M.D., *Fellow in Cardiology*

ROBERT T. SINGLETON, M.D., *Fellow in Cardiology*

GRANTS-IN-AID

<i>Source</i>	<i>Amount</i>	<i>Title</i>
National Heart Institute	\$25,000.00	Cardiovascular Training Grant
Maryland Heart Association	5,830.00	Quinidine: Tissue Gradients and Concentrations
Maryland Heart Association	1,980.00	Blood Volume and Red Cell Mass in Congestive Failure
Maryland Heart Association	4,400.00	Research Fellowship in Cardiology

CURRICULAR ACTIVITIES

The Division of Cardiology is responsible for the laboratory instruction in the Physiology Course devoted to the electrical activity of the heart. In addition, a lecture on Electro-physiology and Electrocardiography is given. That portion of the Physical Diagnosis Course devoted to the cardiovascular system is given by the Division of Cardiology to the sophomore class. The junior class receives several formal lectures in Cardiology and five informal clinics and conferences. They are assigned to hospital wards where they are in contact with consultants in Cardiology. There are weekly ward rounds with the seniors on Cardiology problems. They rotate through the adult and pediatric cardiac clinics where conferences are held. An elective course in Electrocardiography is given which is attended by an average of 75 students and house-staff. Two students, usually seniors, are appointed as Summer Fellows in the Division of Cardiology participating in active investigation and receiving clinical instruction.

Students have the opportunity to participate in the activities in the Division of Cardiology during their free period of the senior year. During the past year, Assistant Residents of Church Home Hospital and Maryland General Hospital served as Fellows in the Division for periods of three to six months. Inter-departmental conferences are held weekly with the Departments of Surgery, Radiology, Anesthesia, and Pediatrics, on patients considered for cardiac surgery. Additional conferences are held weekly on electrocardiographic problems with weekly lectures on current cardiological subjects. An increasing number of cardiac catheterizations are done weekly both as part of the evaluation of cardiac patients undergoing diagnostic studies, and for research purposes. Members of the Division follow all patients to cardiac surgery, and participate in the operative and post-operative care of the patient. Over 8,000 electrocardiograms have been interpreted during the past year. This service is actively integrated into the training program. Members of the Division serve as Consultants in Cardiology to Perry Point Veteran Hospital, Fort Howard Veteran Hospital, Spring Grove State Hospital, Edgewood Arsenal, Rosewood Training School, and several other hospitals. They have participated in all of the activities of the Maryland Heart Association and served as members of the Medical Advisory Board, Board of Trustees, Research, Educational, and Community Services Committees. Lectures in coronary artery disease, congenital heart disease, and digitalis were presented on the *S.S. Stockholm*, as part of the Post-Graduate Medical Course Program.

RESEARCH ACTIVITIES

Studies in blood volume and red cell mass, supported by Maryland Heart Association.

Quinidine metabolism and tissue gradient studies, supported by Maryland Heart Association.

Neurogenic aspects of coronary artery disease, supported by Maryland Heart Association.

Dye dilution in the diagnosis and evaluation of heart disease, supported by The National Heart Institute.

Evaluation of spatial vectorcardiography in the diagnosis of myocardial infarction and cardiac hypertrophy.

Evaluation of the cardiac effects of indoklon in convulsive therapy in cooperation with the Department of Pharmacology and Spring Grove State Hospital.

PUBLICATIONS BY DIVISION OF CARDIOLOGY STAFF MEMBERS

SCHERLIS, L., BESSMAN, S. B. and GONZALEZ, L. F.: Myocardial Uptake and Coronary Sinus—Arterial Gradients of Quinidine Gluconate. Proceedings of the Third World Congress of Cardiology. In press.

EDUCATIONAL ACTIVITIES

<i>Date</i>	<i>Participant</i>	<i>Occasion and Title</i>
Sept. 27, 1957	L. SCHERLIS	Church Home Hospital Medical Lectures
Oct. 10, 1957	K. SWISHER	Maryland Academy of General Practitioners Annual Scientific Session, "Auscultation of the Heart"

Oct. 11, 1957	L. SCHERLIS	Church Home Hospital Medical Lecture, "Cardiac Emergencies"
Oct. 13, 1957	S. SCHERLIS	Har Sinai Brotherhood, "New Horizon in Heart Disease"
Oct. 14, 1957	L. SCHERLIS	Cardiac Seminar—Wash. County Heart Asso., "Diagnosis of Cardiac Disease"
Oct. 14, 1957	S. SCHERLIS	Cardiac Nursing Seminar, Hagerstown, Md., "The Child with Heart Disease"
Oct. 20, 1957	L. SCHERLIS	Potomac Chapter, Am. College of Physicians, "Medical Aspects of Coronary Artery Disease"
Oct. 21, 1957	S. SCHERLIS	Methodist Ministerial Conference, Baltimore, Md., "Heart Disease"
Oct. 29, 1957	L. SCHERLIS	Baltimore City Anesthesia Conference, "Problems of Electrocardiography"
Nov. 3, 1957	S. SCHERLIS & L. SCHERLIS	TV-MD, WBAL, "Misconceptions in Heart Disease"
Nov. 12, 1957	S. SCHERLIS	Temple Ohel Sholem Brotherhood, "New Horizon in Heart Disease"
Nov. 15, 1957	S. SCHERLIS	Annual Meeting of Heart Association of Md., "Analysis of the Heart Problem and Our Ability to Meet It"
Nov. 15, 1957	L. SCHERLIS & L. GONZALEZ	Scientific Session of the Maryland Heart Assoc., "Some Considerations of Quinidine Metabolism As Determined by Gradients Across the Myocardium"
Nov. 18, 1958	S. SCHERLIS	Washington County Board of Education, "The Child with Heart Disease"
Dec. 2, 1957	S. SCHERLIS	American College of Chest Physicians, Philadelphia, "Anti-coagulant Therapy in Acute and Chronic Coronary Heart Disease"
Dec. 7, 1957	A. RICHARDSON	Houston Jr. High School, "You and Your Heart"
Dec. 13, 1957	L. SCHERLIS	Perry Point Veterans Hospital, "The Diet and Heart Disease"
Jan. 18, 1958	L. SCHERLIS	Coronary Dilator Conference, Wm. S. Merrill Co., Cincinnati
Jan. 20, 1958	K. SWISHER	Mt. St. Agnes Hospital, "Emphysema and Cor Pulmonale"
Feb. 9, 1958	L. SCHERLIS	TV-MD, WBAL, "How to Live with Heart Disease"
Feb. 12, 1958	S. SCHERLIS	Harford County Heart Assoc. of Maryland, "Analysis of the Heart Problem and Our Ability to Meet It"; "Advances in Heart Disease"
Feb. 13, 1958	L. SCHERLIS	Mt. St. Agnes Hospital, "Diagnosis and Management of Coronary Disease"

Feb. 14, 1958	S. SCHERLIS	TV-MD, WMAR, "Heart Disease"
Feb. 21, 1958	L. SCHERLIS	Armed Forces Communication Electronics Association, "Use of Medical Electronics in Cardiac Diagnosis"
Feb. 26, 1958	S. SCHERLIS	TV-MD, WBAL, "New Horizon in Heart Disease"
Mar. 4, 1958	L. SCHERLIS	Mercy Hospital Medical Service, "Rheumatic Heart Disease"
Mar. 18, 1958	L. SCHERLIS	Pimlico Jr. High School, "The Challenge of Heart Disease"
Apr. 18, 1958	R. SINGLETON	Medical Institute for Lawyers, "The Anatomy of the Heart"
	L. SCHERLIS	"Significance of Pertinent Cardiac Symptoms"
	S. SCHERLIS	"Stress, Trauma, and the Heart"
	C. E. LEACH	"Cardiac Disease"
May 15, 1958	S. SCHERLIS	Middle Atlantic Regional Meeting, American Heart Assoc., "The Heart Assoc. Research Program"
May 27, 1958	L. SCHERLIS	Eastern Shore, Heart Assoc. of Maryland, "The Practical Value of Spatial Vectorcardiography"

NEEDS OF THE DIVISION

Space

There is need for additional laboratory space for the biochemical studies now in progress. We have been fortunate in having the cooperation of the Department of Pediatrics in the provision of some laboratory space. However, there is urgent need for a larger area, and more adequate facilities than presently available in an already over-crowded active laboratory. Adequate bench space for a technician who is presently being secured for the Quinidine Metabolic studies and allied problems is a current difficulty.

In addition, the Electrocardiographic Department which processes over 8,000 tracings a year is in need of additional file space. This department has been reconstructed during the past year, and is much more adequate than previously. However, the accumulation of records presents a current problem.

Personnel

The activities of the Division of Cardiology have continued to increase. A great deal of the time of the members is devoted to such routine but important activities as cardiac catheterizations, routine diagnostic studies, electrocardiographic interpretation, and ward and clinic activities. Only one member of the Division is supported by the budget of the University. There is need for a permanent budget position for another physician able to participate in these activities. Training and responsibility entailed in the performance of these duties require more continuity than that which is available from Fellows or Residents. It is hoped that he will be a full-time member of the Division.

The increased routine and investigational work of the Division requires the services of another non-professional member of the staff. A technician-secretary is badly

needed in order to keep the files and records available, record and mount electrocardiograms, and type manuscripts.

Research Funds

Additional research funds are to be sought for the various studies in progress. This will include funds for technical help as well as for equipment. Major laboratory equipment will be necessary for both the Quinidine Metabolic studies and Dye Dilution studies. Part of this equipment is being secured at the present time, including a multi-channel recording instrument for cardiac catheterizations and other physiological studies.

DIVISION OF CLINICAL PATHOLOGY

STAFF

MILTON S. SACKS, B.S., M.D., *Professor of Clinical Medicine and Head of Division of Clinical Pathology*

MARIE A. ANDERSCH, B.S., M.S., Ph.D., *Associate Professor of Biochemistry in Medicine*

CARROLL L. SPURLING, M.D., *Assistant Professor of Medicine*

CHARLES L. WISSEMAN, JR., B.A., M.S., M.D. (part-time), *Professor of Microbiology*

W. W. SCHIER, M.D. (part-time), *Assistant Professor of Medicine*

JOHN B. DEHOFF, A.B., M.D. (part-time), *Associate in Medicine*

BENJAMIN ROTHFELD, B.A., M.S., M.D. (part-time), *Assistant in Medicine*

STANLEY MILLER, B.A., M.D. (part-time), *Associate in Medicine*

HOWARD COHN, M.D., *Baltimore Rh Laboratory Fellow in Medicine* (July 1, 1957)

ELIAS GUTTMAN, M.D., *Baltimore Rh Laboratory Fellow in Medicine* (July 1, 1957)

ELSA F. JAHN, B.S., *Research Associate in Clinical Pathology*

JASON M. MASTERS, M.S., *Instructor in Medicine*

AUDREY FUNK, B.A., *Assistant in Medicine*

STATISTICAL SUMMARY OF WORK

	<i>Jan. 1, 1957-Jan. 1, 1958</i>	<i>1950</i>
Bacteriology	36,054	20,446
Biochemistry	87,436	45,642
Blood Bank	56,264	36,000
Coagulation Laboratory	6,854	...
Hematology	77,703	58,176
OPD Laboratory	64,472	36,394
Serology	32,788	30,817
Urinalysis Laboratory	94,095	17,927
	455,576	245,402

Percentage increase in volume of work—1950-1957 87%

RESEARCH AND DEVELOPMENT

Activities have been directed in three major areas: hematology, clinical biochemistry, and bacteriology-serology. These goals have been: 1) continuous effort to improve diagnostic facilities through the trial and adaptation of new methods derived from study of current literature by qualified specialists in these fields; 2) the development of new methods based on original investigation; 3) basic research in these areas.

In biochemistry, a new method of *determination of calcium in body fluids* has been published by Dr. Andersch (J. Lab. & Clin. Med., 49:486, 1957). This has attracted wide interest from persons in the field of clinical biochemistry. The determination of *ceruloplasmin oxidase* activity has been added to the diagnostic armamentarium. This technique is of value in the study of abnormalities of copper metabolism. There is a continuing effort toward the introduction of *automation* for the analysis of certain substances done on a mass basis. Further developments along these lines are anticipated.

In hematology there has been increasing use of radioisotopes. Fe^{59} is now being employed in appropriate clinical situations in which quantitative evaluation of erythropoiesis is desirable. Red cell survival studies with Cr^{51} are now being done regularly. *Cobalt⁶⁰—labelled vitamin B₁₂*—is being increasingly used to study intestinal absorption of this vitamin. These studies have been carried out with the cooperation of the Division of Radioisotopes. Research fellows are directly involved in these studies. A new method for the determination of *leukocyte alkaline phosphatase* has been introduced. This is of value in the differential diagnosis of leukemoid states from true leukemia.

Serum vitamin B₁₂ levels continue to be used in the diagnosis of granulocytic leukemia and for the *evaluation of oral methods of treatment of pernicious anemia*. The results of these studies will be published shortly in cooperation with Drs. Rozelle Hahn and Patricia Macintyre of the Division of Hematology, Department of Medicine, Johns Hopkins Medical School. Mr. Jason M. Masters has been primarily involved in these studies.

Investigation into various aspects of disorders of coagulation are being carried out by Dr. Carroll Spurling and Dr. Sacks. A paper on *Vascular Hemophilia* is now being prepared for publication. This is a recently described hereditary entity, occurring in males and females, in which a deficiency of anti-hemophilic globulin is associated with a normal coagulation time and, paradoxically, a prolonged bleeding time.

Dr. Spurling is exploring the potentialities of a method for determining the *electrophoretic mobility of normal and abnormal erythrocytes*.

Preliminary studies are under way for the possible application of the *fluorescent antibody technique* to problems of hemolytic anemias and thrombocytopenic purpura. Data regarding the *recurrence of A-B-O erythroblastosis* are being assembled from the records of the Baltimore Rh Typing Laboratory.

The bacteriology laboratory is now performing typing of *Esch. coli* and *B-hemolytic streptococci*. Several of the personnel attended a special workshop in parasitology during the year and diagnostic facilities in this area have been improved. Through the cooperation of Dr. Andrew Smith of the Department of Microbiology

additional facilities for *mycological studies* are now available. Under Dr. Wisseman's direction, Miss Audrey Funk is carrying out a study in *staphylococcal sepsis*. An attempt is being made to determine the difference in the localization of organisms in red cell mass, whole blood and buffy coat.

The serology laboratory has introduced the VDRL antigen for the diagnosis of syphilis in place of the previously employed Eagle antigen. In the serological survey conducted by the Maryland State Department of Health this laboratory scored 100% in sensitivity and specificity of the STS. Regular performance of *anti-streptolysin O titration* has been introduced this year. *The Reiter Protein Complement Fixation Test* for determination of the biologic false positive STS has been introduced.

PUBLICATIONS BY DIVISION OF CLINICAL PATHOLOGY STAFF MEMBERS

RACCUGLIA, G. and SACKS, M. S.: The Vitamin B₁₂ Binding Capacity of Normal and Leukemic Scars, *J. Lab. & Clin. Med.* 50:69, July 1957.

YOUNG, JR., J. D. and SACKS, M. S.: Prostatectomy in a Hemophiliac, *J. Urol.* 78:644, Nov. 1957.

SACKS, M. S.: Erythropoietin, *Ann. Int. Med.* 48:207, Jan. 1958.

CURRICULAR ACTIVITIES

Clinical Pathology, Sophomore year	128 hours
Advanced Clinical Pathology, Junior year	36 hours
Hematology conferences, Senior year	32 hours
General Medicine (lectures, clinics), Junior year	5 hours
Hematology staff rounds (house staff teaching), 2 hours per week . .	12 months
Proportional participation, weekly grand rounds in Medicine (Tuesday noon conferences)	—
Proportional participation, Saturday morning, inter-departmental seminars	—
Participation in Basic Science program of Department of Obstetrics and Gynecology, Junior year	12 hours
Participation, Basic Science program of Postgraduate Committee . . .	—

Efforts have been made and are continuing toward greater integration of the course in Clinical Pathology with the teaching programs of Microbiology and Pathology. Since this course is fundamental to instruction in clinical medicine, greater emphasis is being placed upon the case method of teaching.

GRANTS-IN-AID

Maryland Division, American Cancer Society, Leukemia Research . . .	\$ 4,000.00
Anna Corman Memorial Fund, General Hematology Research	3,000.00
Baltimore Rh Laboratory, General Hematology Research	15,000.00
Baltimore Rh Laboratory, Two Research and Clinical Fellowships . . .	6,500.00
	\$28,500.00

LECTURE INVITATIONS—JULY 1, 1957 - JUNE 30, 1958

Oct. 2-3, 1957	MILTON S. SACKS	University of North Carolina Postgraduate Course in Medicine, "Hereditary Hemoglobinopathies," "Red Cell Antigens," Morganton & Asheville, N. C. (Illness prevented attendance)
Oct. 11, 1957	MILTON S. SACKS	Phi Delta Epsilon Medical Fraternity, "Red Blood Cell Antigens—Their Significance in Transfusions," Baltimore, Md.
Nov. 1, 1957	MILTON S. SACKS	Doctors' Hospital, Postgraduate Institute, "Hematology in General Practice," Baltimore, Md.
Nov. 6, 1957	MILTON S. SACKS	17th Annual Conference, Md.-D.C.-Del. Hospital Conference, Medical Technology Section, "Clinical Laboratories Responsibility to the Community," Washington, D. C.
Nov. 24, 1957	CARROLL L. SPURLING	Doctors' Hospital, Postgraduate Institute, "Hemorrhagic Disorders," Baltimore, Md.
Dec. 10, 1957	MILTON S. SACKS	Sinai Hospital Obstetrical Staff Conference, "Erythroblastosis—Present Status," Baltimore, Md.
Feb. 18, 1958	MILTON S. SACKS	Johns Hopkins Hospital, Medicine I Conference, "Genetic Aspects of Hematologic Disorders," Baltimore, Md.
Mar. 11, 1958	MILTON S. SACKS	Hanover General Hospital Medical Staff, "Hemorrhagic Diseases," Hanover, Pa.
Mar. 19, 1958	MARIE A. ANDERSCH	Woman's Hospital, "Workshop in Cholesterol Methods," joint project Med. Soc. of Med. Technologists and Med. Soc. of Pathologists, Baltimore, Md.
Apr. 9, 1958	MILTON S. SACKS	Union Memorial Hospital, Obstetrical Staff Conference, "Unusual Varieties of Isoimmunization," Baltimore, Md.
Apr. 12, 1958	MILTON S. SACKS	Annual Pediatric Seminar, University of Maryland School of Medicine, Department of Pediatrics, Moderator—Discussion of paper by Dr. Louis K. Diamond, "Jaundice in the Newborn," Baltimore, Md.
Apr. 15, 1958	MILTON S. SACKS	New Castle (Del.) County Medical Society and Wilmington V.A. Hospital, "Hemorrhagic Disorders," Wilmington, Del.

Apr. 16, and May 21, 1958	MILTON S. SACKS	University of Maryland Medical School, Postgraduate Course in Basic Sciences, "Blood Group Immunology," "Vitamins and Anti-vitamins in Hematopoiesis," Baltimore, Md.
Apr. 23, 1958	MILTON S. SACKS	Harford County (Maryland) Medical Society, "Hemorrhagic Diseases," Havre de Grace, Md.
May 1, 1958	MILTON S. SACKS	American College of Physicians Annual Meeting, Panel Discussion, "Toxic Effects of Tranquilizing Drugs," Atlantic City, N. J.
May 12, 1958	MARIE A. ANDERSCH	Franklinton High School, Career Night, "Medical Technology," Reisterstown, Md.
June 3, 1958	MILTON S. SACKS	Medical Research Club, "Leukemia—Current Problems," Baltimore, Md.

MEETINGS ATTENDED BY VARIOUS MEMBERS OF DIVISION

Feb. 1958	"Hodgkin's Disease Symposium," New York Academy of Science
Apr. 1958	American College of Physicians, Annual Meeting
Apr. 1958	Federated American Societies for Experimental Biology
May 1958	American Society for Clinical Investigation

PROBLEMS AND NEEDS

The problems of the Division of Clinical Pathology affect the operation of every department of the hospital concerned with teaching and patient care. It is an obvious truism that a hospital, and particularly a teaching hospital, is no better than its laboratory diagnostic facilities. The modern clinician, regardless of his field, cannot function without rapid, accurate, reliable laboratory data. The consequences of the reverse of this are readily demonstrable in the poorer hospitals of the community.

The Division of Clinical Pathology of the University Hospital has laboriously developed the framework for such facilities. We are organized in the major areas of laboratory diagnosis to readily adapt the newest techniques of study and, further, to develop such techniques based on original investigation. We can provide postgraduate training second to none for young physicians pursuing a career in certain phases of internal medicine (hematology), clinical biochemistry, and diagnostic bacteriology and immunology. We have recently been accredited for two years of training in Clinical Pathology for those physicians aiming toward certification by the American Board of Pathology.

All of this carefully developed structure faces crisis and disaster if we do not get wholehearted support and assistance from administration in facing up to and solving the problems to be listed below. The needs have been detailed in previous reports.

The basic and inescapable fact which underlies the present situation is the 700% increase in work which has occurred in the 22-year period, 1935-1957, within the original physical confines of the division. During fiscal 1957-58, the gross income

of the division was \$1,039,690.40. This huge volume of "scientific business" has resulted in a variety of problems which I shall take up in order.

FACULTY

The mechanics of operation of this division, operating as it does 24 hours a day, seven days a week, require an inordinate amount of time from faculty personnel who are primarily concerned with teaching, research, patient care, and the improvement of diagnostic methods within their respective disciplines. For several years now we have requested the creation of the position of administrative assistant or executive secretary to carry out the day to day problems of the administration of this "business" under the guidance of the professional staff. We have met with no success to date. This shortsighted policy leads to poor morale, discouragement, and ultimate loss of key people.

During the past year a committee was appointed to develop plans for the establishment of a school of medical technology. A drastic shortage of skilled personnel exists in this field. In many states, this important function has already been assumed by the state university. The needs in Maryland are great. Yet we can only say that it is fortunate that the request for budgetary support in the 1957-58 budget was deleted by the university administration. We do not have the teaching or administrative personnel, nor the space to start this program. Yet the problem cannot be ignored.

This division has gained a reputation in the country as a center for graduate training in hematology. Requests for fellowships and for shorter periods of training have come from our own institution and from affiliated hospitals. We have committed ourselves to participate in the residency training program of the Department of Pathology to provide 1-2 years of training in Clinical Pathology. The administrative load of the senior personnel is so onerous as to interfere with proper training. Physical facilities are inadequate.

SPACE

Between inpatient and outpatient laboratories we have approximately 6,000 square feet of space. Upon request, we have recently furnished an estimate of 25,000 square feet as needed now and for future development. Since the chances of acquiring this space seem to have their best opportunity for realization in the new OPD building, we are realistic in estimating that relief is perhaps five years off. Hospital expansion is impossible without more laboratory space. We have repeatedly pointed out the critical condition of the Blood Bank. We cannot continue to ignore this for five years! *With the assistance of the administration* we must attempt to find additional space *pro tem* and must renovate critical areas.

TECHNICAL PERSONNEL

One can only maintain a high level of scientific reliability through the assistance of qualified personnel. The Division of Clinical Pathology was a pioneer in establishing educational prerequisites for medical technologists and in getting a fair salary scale. We are falling behind. Without the "importation" of technical personnel during the past year or so from the Philippines and Colombia we should have a

more serious shortage than exists now. A vacant technical position may not get filled for months. We can't operate this way. The competition for the small percentage of scientifically trained women college graduates is terrific. This is a national problem. We have begun to do some constructive planning for increasing the attractiveness of this field of endeavor for high caliber personnel. The administration must assist in raising salary scales to a competitive point as well as provide better working conditions.

FUNDS FOR RESEARCH AND DEVELOPMENT

From the gross or net income of this division a restricted fund must be established to be used strictly for research, education, and development. To stand still in this rapidly moving field is to regress. This restricted fund should be used to support resident and fellowship training, purchase capital equipment of established usefulness or for pilot experimental studies, provide funds to send senior technical personnel to participate in brief training programs such as those provided by the Communicable Disease Center of the USPHS.

SUMMARY

1. To ignore the problems presented above is to court crisis and disaster. We cannot progress without the wholehearted support of the administration. Every area of the hospital is affected.
2. The position of Administrative Assistant or executive secretary, or whatever one wishes to call it, should be established at the earliest possible time.
3. A restricted fund from laboratory income should be established for research and education purposes.
4. Prompt steps must be taken to improve the salaries of medical technologists as well as their working conditions.
5. Since relief from serious overcrowding is probably five years off, a genuine attempt to improve existing facilities should be made *now*.
6. The establishment of a school of medical technology should probably be delayed until space and proper administrative personnel are available.

DIVISION OF DERMATOLOGY

STAFF

- HARRY M. ROBINSON, JR., B.S., M.D., *Professor of Dermatology, Head of the Division of Dermatology*
 FRANCIS A. ELLIS, B.S., M.D., *Associate Professor of Dermatology, Assistant Professor of Pathology in charge of Dermal Pathology*
 RAYMOND C. V. ROBINSON, B.S., M.D., M.Sc., *Associate Professor of Dermatology, Assistant Chief of Dermatology Clinic*
 EUGENE S. BERESTON, B.A., M.D., M.S., D.Sc., *Assistant Professor of Dermatology*
 ALBERT SILAPIRO, B.S., M.D., *Assistant Professor of Dermatology*
 MARK B. HOLLANDER, A.B., M.D., *Associate in Dermatology*
 WILLIAM R. BUNDICK, M.D., *Associate in Dermatology*

STANLEY N. YAFFE, B.S., M.D., *Instructor in Dermatology*
 MORRIS M. COHEN, B.S., M.D., *Instructor in Dermatology*
 DAVID BACHARACH, B.A., M.D., *Instructor in Dermatology*
 JOHN F. STRAHAN, M.D., *Instructor in Dermatology*
 LEE R. LERMAN, B.S., M.D., *Assistant in Dermatology*
 JACOB LUDWIG, Ph.G., M.D., *Assistant in Dermatology*
 LOUIS E. HARMON, A.B., M.D., *Fellow in Dermatology*
 KEN HASHIMOTO, M.D., *Assistant Resident in Dermatology*
 JOAN RASKIN, M.D., *Assistant Resident in Dermatology*

GRANTS-IN-AID

Upjohn Company	\$5,400.00	Unrestricted gifts for dermatology education
Parke Davis & Company	2,000.00	Unrestricted gifts for dermatology education and research
Merck Sharp & Dohme	3,000.00	Unrestricted gifts for dermatology education and research
Miss Paula Von Kline	500.00	A gift for dermatology education
The Duke Company	500.00	A gift for dermatology education
Smith, Kline & French	2,000.00	Unrestricted gift for dermatology education and research
Wallace & Tiernan	2,000.00	Unrestricted gift for dermatology education and research

CURRICULAR ACTIVITIES

Members of the division have participated in teaching Dermatology to the Junior and Senior classes of the medical school. Daily rounds are made in the hospital by one of the senior staff members on all service consultations and private patients. Daily teaching is done in the out-patient department to eight groups of 10-12 senior students who are assigned to Dermatology for a two-hour period daily for four weeks. A two-hour clinical session is held once weekly for nine weeks with each quarter of the Junior class. Special weekly conferences are held for the Division staff and all house officers.

An active training program is conducted at the postgraduate level for residents and fellows in Dermatology. The Division of Dermatology has been approved by the American Board of Dermatology for the three years of training required by that organization for certification.

By invitation, members of the division have participated in the Saturday morning interdepartmental seminars. The division also participates in programs outlined by the postgraduate committee.

RESEARCH ACTIVITIES

A clinical and laboratory evaluation of 8-methoxy psoralen is being conducted to determine its value in the production of melanin following exposure to ultra-violet or sunlight. Initial studies indicate that, properly employed, this compound is of limited value in the treatment of vitiligo or acquired leukoderma. It causes a uniform deposit of pigment in normal control patients.

The value of tissue culture in the diagnosis of various cutaneous entities is being explored in collaboration with the Division of Infectious Diseases.

A study on the blood circulation in the skin of infants is being conducted in the recently constructed dermal pathology laboratory. Knowledge gained from this investigation will be applied to a projected long term study on the blood circulation in hemangiomas.

A survey to determine the incidence of *candida albicans* on the skin and in the orifices of normal individuals, and in those who have been receiving antibiotics is being conducted in the hospital and in the out-patient department. All age groups are being studied. The initial phase of this study has indicated that the time-honored method of cultural identification using corn meal agar is of very little value. Nickerson's medium and other commercially available products are of no value in determining species identification. To date, our studies have indicated that the rice agar medium is the most satisfactory for the demonstration of chlamydispores.

A quarternary ammonium compound, dispensed in an ointment base, has proved to be effective in the treatment of pyogenic dermatoses. Paired comparison studies indicate that this compound is probably as effective as the currently available antibiotic ointments or lotions.

In collaboration with the dermatology out-patient clinic of Provident Hospital, the Division of Dermatology is conducting a clinical and laboratory survey of pigmentary disturbances in the American Negro.

Members of the division have been actively engaged in the study of topically applied steroids in the treatment of responsive dermatoses. The newer compounds appear to have the same therapeutic activity on local application in a lower concentration than preparations previously studied. Triamcinolone and Hexadecadrol are new steroids which have been submitted for clinical evaluation on systemic administration. During the course of this investigation, routine laboratory studies have been performed before, during, and after administration of the drugs, photographic studies before and after have been made, and the effect on the cardiovascular apparatus has been determined by X-ray findings and electrocardiographic tracings.

Triacetyl oleandomycin has been used in the treatment of various pyogenic infections. Laboratory studies including tube dilution sensitivity tests have been conducted in collaboration with the Division of Infectious Diseases of the Department of Medicine.

A new, fully equipped dermal-pathology laboratory has been established within the geographical location of the Division of Dermatology. The Department of Pathology is collaborating in several of the studies being undertaken in this area. This laboratory was constructed and furnished by restricted funds earned by members of the division in the performance of clinical investigations for various drug companies.

The members of the Division of Dermatology are collaborating in the publication of a text on Dermatology which is being written expressly for medical students and general practitioners.

Clinical investigations on the role of tranquilizing drugs in the treatment of dermatoses is still in progress. Two new compounds have been submitted for study. In view of the number of placebo reactors discovered in previous studies, this will probably be a long term project and difficult to evaluate.

We have recently purchased a Grenz Ray apparatus for the treatment of dermatoses and hemangiomas. This will probably replace the use of X-ray therapy in Dermatology eventually. Investigative studies relative to this one are being conducted.

PUBLICATIONS BY DIVISION OF DERMATOLOGY STAFF MEMBERS

- ROBINSON, JR., H. M.: *Stedman's Medical Dictionary*, Dermatology editor and consultant.
- ROBINSON, JR., H. M., ROBINSON, R. C. V. and STRAHAN, J. F.: Hydroxyzine Hydrochloride (Atarax) a New Tranquilizer, *South. M. J.* 50:1282, 1957.
- ROBINSON, R. C. V.: Cutaneous Moniliasis in Infants, *J. Pediat.* 50:721, 1957.
- ROBINSON, R. C. V. and ROBINSON, JR., H. M.: Deocin: A New Antibacterial Antiperspirant, *Bull. School Med. Univ. Maryland* 42:72, 1957.
- ROBINSON, JR., H. M.: Treatment of Warts, *Current Therapy*, 1957.
- ROBINSON, R. C. V.: Treatment of Granuloma Inguinale and Lymphogranuloma Venereum, *Current Therapy*, 1957.
- ELLIS, F. A. and BUNDICK, WM. R.: Warts, Types and Treatment, *Maryland M. J.* 6:391, 1957.
- COHEN, M. M.: Keratoacanthoma, *Cancer Bulletin*, 7:206, 1957.
- ROBINSON, JR., H. M., ROBINSON, R. C. V. and STRAHAN, J. F.: Control of Emotional Factors in Dermatoses, *Scientific Exhibits, A.M.A. Arch. Dermat.* 77:486, 1958.
- BERESTON, E. S., ROBINSON, JR., H. M. and WILLIAMS, S. A.: The Quantitative Nutritional Requirements of the Genus *Microsporum*, *J. Invest. Dermat.* 30:63, 1958.
- LUDWIG, J. S. and COHEN, M. M.: A Mixed Tumor Occurring as a Syringocystadema Papilliferum with a Nevus Sebaceus, *A.M.A. Arch. Dermat.* 77:116, 1958.
- ROBINSON, JR., H. M. and ELLIS, F. A.: *Cutis Laxa*, *A.M.A. Arch. Dermat.* 77:656, 1958.
- ROBINSON, JR., H. M. and ROBINSON, R. C. V.: Control of Emotional Tension in Dermatoses, *South. M. J.* 51:509, 1958.
- ROBINSON, R. C. V.: Treatment of Dermatoses with Local Application of Triamcinolone Acetonide, A New Synthetic Corticoid, *Bull. School Med. Univ. Maryland*. In press.
- ROBINSON, R. C. V. and SMITH, G. C.: Triquin in the Treatment of Discoid Lupus Erythematosus. *Bull. School Med. Univ. Maryland*. In press.
- COHEN, M. M.: An Avocational Dermatitis (accepted for publication in the *Maryland M. J.*).
- COHEN, M. M.: An Easy Office Procedure for Staining Superficial Fungi with Fountain Pen Ink: (accepted for publication by the *Bull. School Med. Univ. Maryland*).

EDUCATIONAL ACTIVITIES

- Aug. 3, 1957 H. M. ROBINSON, JR. International Congress of Dermatology, Stockholm, Sweden, presented papers on the following subjects:
1. Uses and Abuses of Antibiotics in the Treatment of Dermatoses
 2. Limitations of Antibiotic Therapy in the Treatment of Acne Vulgaris
 3. Topical Antibiotic Therapy
 4. Laboratory Selection of Antibiotics for Systemic Administration
 5. Systemic Steroid Therapy in the Treatment of Dermatoses
- International Congress of Dermatology, Stockholm, Sweden, exhibit on Topical Steroid Therapy

Aug. 4, 1957	H. M. ROBINSON, JR.	International Congress of Dermatology, Stockholm, Sweden, Moderator of Panel on Antibiotic Therapy and also Moderator of Panel on Barrier Creams and Protectives
Aug. 1, 1957	F. A. ELLIS	International Congress of Dermatology, Stockholm, Sweden, presented a paper on The Relationship of Lichen Planus to Lichen Nitidus and Lichen Plano-Pilaris to Lichen Spinulosus
Aug. 1, 1957	F. A. ELLIS	International Congress of Dermatology in Stockholm, Sweden, presented an exhibit on Benign and Malignant Dyskeratoses
Sept. 20, 1957	H. M. ROBINSON, JR.	Medical and Chirurgical Faculty of Montreal, Canada, Recent Developments in Dermatologic Therapy
Oct. 4, 1957		South Carolina Academy of General Practice, Clemson, S. C., Lecture "Diagnosis and Treatment of the More Common Dermatoses"
Oct. 10-13 1957	H. M. ROBINSON, JR. DERMATOLOGY STAFF	Participated in the conduction of the American Board of Dermatology Oral Examinations held in the Dermatology Division of the School of Medicine of the University of Maryland
Oct. 1, 1957	H. M. ROBINSON, JR.	President of the Baltimore Dermatologic Association
Nov. 9-15 1957	H. M. ROBINSON, JR.	Attended the Southern Medical Association meeting in Miami, Fla. Councilor from Maryland to that organization. Presented an exhibit on the Epidemiology of Microsporium Audouini Infection of the Scalp
Nov. 9, 1957	F. A. ELLIS	South. Med. Assoc., Miami, Fla., opening a discussion on the paper "Healing Following Cutaneous Planing"
Nov. 7, 1957	H. M. ROBINSON, JR. R. C. V. ROBINSON	Southern Medical Association, Miami, Fla., "Controlling Emotional Factors in Dermatoses"
Dec. 7, 1957	H. M. ROBINSON, JR.	Elected to the Board of Directors of the American Academy of Dermatology and Syphilology
Dec. 9, 1957	H. M. ROBINSON, JR.	American Academy of Dermatology, Chicago, Ill., lecture on Non-Malignant Mucous Membrane Lesions

Dec. 7, 1957	F. A. ELLIS	American Academy of Dermatology, Chicago, Ill., participant in the panel on Clinical Histopathology
Jan. 3, 1958	J. F. STRAHAN	Franklin Square Hospital, Medical grand rounds, lecture on Dermatoses Associated with Systemic Diseases
Feb. 5, 1958	H. M. ROBINSON, JR.	Howard University, Washington, D. C., guest lecture in Dermatology to the Junior and Senior classes
Feb. 5-6, 1958	H. M. ROBINSON, JR.	Howard University, Washington, D. C., Conference with the Dean, the Department of Medicine and the head of the Dermatology Division to outline a plan for the reorganization of a teaching Division of Dermatology at the Howard University
Mar. 11, 1958	H. M. ROBINSON, JR.	The Ohio Academy of General Practice, Steubenville, Ohio, lecture, Practical Office Diagnostic Procedure in Dermatology
Mar. 29, 1958	H. M. ROBINSON, JR.	Atlantic Dermatologic Conference, Montreal, Canada, opening discussion on Pretibial Myxedema
May 1, 1958	F. A. ELLIS	Columbia University Department of Dermatology, New York City, an illustrated lecture on Dyskeratosis, Lupus Erythematosus and other rare dermatologic subjects
May 3, 1958	F. A. ELLIS	Bellevue Hospital, New York City, participated in Dermatology seminar
May 15, 1958	E. S. BERESTON	A member of the Dermatology Panel, Sibly Memorial Hospital alumni day, Washington, D. C.
June 1, 1958	F. A. ELLIS	American Dermatologic Association, Sun Valley, Idaho, discussion of a paper on "Parapsoriasis" by Dr. S. Zymansky
	M. M. COHEN	Recently appointed director of the Division of Venereal Diseases for Baltimore City Health Dept. gives weekly lectures on venereal diseases to the public health nurses of the City of Baltimore

NEEDS OF THE DIVISION

Space

During the past year a portion of one of the classrooms was utilized to build a histopathology laboratory. There is a definite need for more and better equipped examining rooms in the Dermatology out-patient department. At our present

census of 10,000 clinic visits a year, we could use approximately twice the space presently available. Visualizing the probable growth over the next ten-year period, we will probably need three times the present space. The histopathology laboratory mentioned in the report presented last year has become a reality through the efforts of the members of our division who have contributed their time and the funds they have earned from clinical investigations. Provisions should be made for animal storage so that we could proceed with basic investigations.

Provisions should be made for office space for the various members of the staff who contribute much of their time, without salary, to the teaching effort and research activities.

In a more attractive atmosphere, and with better examining rooms, private patients could be induced to come to the clinic where they could also be utilized in the teaching effort.

Personnel

At present we have one part-time secretary who is paid from grants-in-aid and one full-time secretary on the University budget. There is definite need for another full-time medical secretary who may process routine reports and prepare manuscripts and type correspondence. We have one technician on the University budget and our rapidly expanding research program has necessitated the hiring of a part-time assistant who is paid from restricted funds. There is an immediate necessity for an additional technician, grade 2, to be assigned to this division.

Provisions should be made in the budget for a resident and two assistant residents in Dermatology so that the current three-year plan may continue in operation without any break. At present we have one full-time fellow who has completed two years of training and is entering on his third year. During this time he has not received any salary. In order to keep our resident staff at the desired number, it has been necessary to utilize budget positions assigned to other divisions and departments.

Two summer fellows should be assigned to the Division of Dermatology each year. These men will definitely aid the research effort.

Research Funds

At present we have an allotment of \$600.00 a year from the Department of Medicine. In order to provide for the purchase of animals and other expendable supplies this amount should be increased.

Travel Funds

Funds should be made available to defray the expenses of members of the Division who actively participate in national meetings.

DIVISION OF ENDOCRINOLOGY AND METABOLISM

STAFF

THOMAS B. CONNOR, A.B., M.D., *Assistant Professor of Medicine*

JOHN C. STAUFFER, M.D., *Fellow in Medicine (full-time)*, July 1, 1957-Dec. 31, 1957

HESKEL HADDAD, M.D., *Fellow in Medicine* (part-time), Aug. 15, 1957-Mar. 15, 1958
 GERALD T. MCINERNEY (student), *Summer Fellow*, June 15-Sept. 15, 1957
 MARTHA STAUFFER (student), *Summer Fellow*, June 15-Sept. 15, 1957.

GRANTS-IN-AID

Title	Amount	Source
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Graduate Training Grant		U.S. Public Health Service (National Institute of Arthritis and Metabolic Diseases)
in Metabolic Diseases	\$14,720	
Studies on Flexin	\$ 5,610	McNeil Laboratories, Inc.

CURRICULAR ACTIVITIES

Members of the Division have participated in formal lectures to Junior students and in the weekly Tuesday Medical Grand Rounds and Saturday Seminars for students, residents, and faculty. An out-patient Endocrine Clinic has been held each Monday afternoon during the entire calendar year. Immediately following this session, weekly ward rounds were made on hospitalized patients. Fellows, house officers, and senior students participated in these activities. A series of six, one-hour lectures in "Fluid and Electrolyte Balance" was given by Dr. Stauffer to the Resident Staff in January-February 1958.

Members of the Division also participated in conferences on invitations from other Departments including Pediatrics, Surgery, Biochemistry, Psychiatry, and Gynecology.

RESEARCH ACTIVITIES

Metabolic studies in patients were continued in an attempt to determine the value of phosphate clearances and intravenous calcium tests in the differential diagnosis of problems in calcium metabolism and metabolic bone disease.

A study was undertaken by Dr. Haddad to determine the types of iodinated tyrosines and thyronines present in the plasma of patients with various types of thyroid diseases. This study was carried out in conjunction with Dr. Workman of the Division of Radioisotopes. The use of paper chromatographic methods was required and this was successfully established by Dr. Haddad. Thyroxine and triiodothyronine were identified in the plasma of patients with thyrotoxicosis, whereas only thyroxine could be found in euthyroid individuals with and without goiter.

Following the observations by Dr. T. Nelson Carey that the drug, Flexin, lowered the serum uric acid in two patients, a study has been undertaken to investigate the uricosuric properties of this drug in gouty subjects. This study was begun in March '58, and has been supported by a generous grant-in-aid from McNeil Laboratories.

Detailed metabolic balance studies as well as renal urate clearances have been carried out on several hospitalized patients to date. In addition, a few patients with acute gout have been treated with Flexin.

Thus far, Flexin has been shown to have marked uricosuric and hypouricemic effects in gouty subjects. In addition, the drug produced definite amelioration of some of the symptoms of acute gout.

Additional studies are planned to compare the efficacy of Flexin with other

uricosuric agents and to determine the effectiveness of this agent in the long-term management of gout. To facilitate the long-term study, a program of investigation has been outlined with the Arthritis Division and it is planned to carry this out with both Divisions jointly participating. The drug, Flexin, seems to hold definite promise as an important adjunct in the management of gout.

PUBLICATIONS BY DIVISION OF ENDOCRINOLOGY AND METABOLISM STAFF MEMBERS

- CONNOR, T. B., BERTHONG, M., THOMAS, JR., W. C. and HOWARD, J. E.: Hypertension Due to Unilateral Renal Disease—With a Report on a Functional Test Helpful in Diagnosis. *Bull. Johns Hopkins Hosp.* 100:241, 1957.
- THOMAS, JR., W. C., HOWARD, J. E. and CONNOR, T. B.: Studies on Rickets Induced by a Low Calcium Diet. Effect of Starvation, Citrates and Succinates, *Bull. Johns Hopkins Hosp.* 101:123, 1957.
- THOMAS, JR., W. C., WISWELL, J. G., CONNOR, T. B. and HOWARD, J. E.: Hypercalcemia Crisis in Hyperparathyroidism, *Am. J. Med.* 24:229, 1958.

EDUCATIONAL ACTIVITIES

Participation by all members of the Division (including Senior Students on their "elective month") in the weekly Endocrine Conferences at Johns Hopkins Hospital. Patients of particular interest from the University Hospital are presented by members of the Division at these Conferences. This is considered a very valuable teaching exercise for all members of the Division.

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| July 13-17 | T. B. CONNOR | Participation in the Gordon Research Conference in "Bones and Teeth" held at Meriden, N. H. |
| Apr. 17, 1958 | T. B. CONNOR | Acted as Moderator at Round Table Discussion on "Adrenal Steroids" at the 1958 Spring Meeting of the Medical and Chirurgical Faculty of State of Maryland |
| | T. B. CONNOR | The following outside lectures were given during the year: |
| | | To the Staff of Franklin Square Hospital: |
| | | Sept. 5, 1957—"Adrenal Insufficiency" |
| | | Dec. 1, 1957—"Use of Adrenal Steroids in Therapy" |
| | | To the Staff at Womens Hospital: |
| | | Nov. 8, 1957—"Hypothyroidism" |
| | | To the East Baltimore Medical Society: |
| | | Feb. 4, 1958—"Adrenal Steroids in Therapy" |
| | | To the Church Home Hospital Staff: |
| | | Dec. 6, 1957—"Hyperparathyroidism" |
| | | April 11, 1958—"Addison's Disease" |
| | | To the Mercy Hospital Ob.-Gyn. Staff: |
| | | Jan. 29, 1958—"Some Physiologic and Pathologic Considerations of the Pituitary, Thyroid, and Adrenal Glands" |
| | | May 14, 1958—"Hypertension Due to Unilateral Renal Disease" |

NEEDS OF THE DIVISION

Space

Space for a secretary is essential. Beginning July 1, 1958, a secretary will be added to the Division, and she will be located in the office of Dr. Wiswell. For efficient running of the Division, additional secretarial space will be required. At present there is no space available for a secretary.

During the coming year, it is planned to institute urine and plasma steroid determinations in the laboratory. Room 522 in the Bressler Building will be satisfactory for part of this work, but a smaller room will also be essential to house the necessary equipment required for these determinations.

The research work of this Division necessarily requires complete and detailed metabolic balance studies on hospitalized patients. It is extremely difficult to carry out such studies accurately without a metabolic ward. Much time and effort is needlessly wasted in supervising certain aspects of these studies, when these latter details could be adequately carried out by trained nursing and dietician personnel.

A four-bed metabolic unit on the hospital wards is urgently needed for these important studies and this must necessarily include nurses and a dietician specially trained in this type of work.

The present metabolic studies on Flexin (cf. above) are being carried out under considerable handicap because of the lack of a metabolic unit in the hospital.

Personnel

The Division has operated under considerable difficulty because of the lack of a full-time secretary. A full-time secretary will become an integral part of the Division on July 1, 1958.

However, on this same date Dr. John Wiswell will join the Division, so that within the coming year, an additional secretary will be needed to adequately and efficiently handle the work-load of the Division.

An M.D. or Ph.D. trained in the techniques of steroid chemistry is essential for proper operation of a steroid laboratory. Two physicians are currently interested and under consideration. Funds to support this additional member of the Division will be required.

Research Funds

Funds will be required to set up and maintain the steroid laboratory. It is estimated that an initial minimum of \$8,000 will be required to purchase equipment and to make necessary renovations in Room 522 Bressler Building in order to set up this laboratory.

Funds to support a technician who will assist in these steroid determinations will also be required.

DIVISION OF GASTROENTEROLOGY

STAFF

SAMUEL MORRISON, A.B., M.D., *Associate Professor of Medicine*

ALBERT J. SHOCHAT, B.S., M.D., *Instructor in Gastroenterology*

RAYMOND STANDARD, M.D., *Clinic Physician*

VERNON M. SMITH, M.D., *Associate in Medicine*

PAUL COFFAY, M.D., *Clinic Physician*

W. CARL EBELING, B.S., M.D., *Associate Professor of Medicine*

CURRICULAR ACTIVITIES

These are varied and range from introductory classes with Sophomore students to postgraduate seminars, with the major efforts at the clinical level with the Junior and Senior medical students.

RESEARCH ACTIVITIES

Pancreatic visualization by Dr. Vernon M. Smith.

EDUCATIONAL ACTIVITIES

Mar. 15, 1958	VERNON M. SMITH	Esophageal Hiatus Hernias, Doctor's Hospital
Mar. 22, 1958	VERNON M. SMITH	Acute Corrosive Esophagitis, Doctor's Hospital
Mar. 6, 1958	VERNON M. SMITH	Penicillin Anaphylaxis, Franklin Sq. Hospital

NEEDS OF DIVISION

Space

These needs would be dependent on personnel.

Personnel

Full-time division head; full-time fellow.

Research Funds

These would depend on the above-named person.

DIVISION OF HYPERTENSION

STAFF

SAMUEL T. R. REVELL, JR., B.S., M.D., *Head of Division & Associate Professor of Medicine*

FRANCIS J. BORGES, B.S., M.D., *Assistant Head of Division & Associate in Medicine*

GEORGE ENTWISLE, B.S., M.D., *Assistant Professor of Medicine*

Y. CHEN LEE, M.D., *Hypertension Foundation Fellow in Medicine*

CURRICULUM ACTIVITIES

Members of the Division of Hypertension have actively participated in the teaching program of the Department of Medicine. Regular weekly rounds in problems of hypertension and renal disease have been conducted for the House Staff, Junior and Senior students assigned to the medical wards, stressing meticulous etiologic diagnosis. An additional weekly Hypertensive Clinic in the Out-patient Depart-

ment has been maintained. Here the Senior students attend as an elective. Members of the Division have participated in the Tuesday noon Medical Clinics and the Saturday Seminars for Junior and Senior students, House Staff, and Faculty.

GRANTS-IN-AID

	<i>Amount</i>	<i>Title</i>
National Institutes of Health	\$23,000.00	Pathogenesis of Pyelonephritis
C. S. Faller	1,000.00	Artificial Kidney
F. M. Nicodemus	500.00	Artificial Kidney
Alexander Smick	400.00	Artificial Kidney
Alvin Filbert	400.00	Artificial Kidney
Wm. F. Hilgenberg	400.00	Artificial Kidney
Harry A. Dundore	400.00	Artificial Kidney

RESEARCH ACTIVITIES

Continuation of clinical research in the field of more exact etiological diagnosis of hypertensive states with particular attention to improvement in the diagnosis of chronic pyelonephritis.

Joint studies with the Division of Infectious Diseases and Division of Pathology on various experimental techniques for producing pyelonephritis in dogs.

Installation of and equipping a renal laboratory for artificial kidney unit.

PUBLICATIONS BY DIVISION OF HYPERTENSION STAFF MEMBERS

BESSMAN, S. P., MERLIS, J. K. and BORGES, F. J.: Effect of 5-Hydroxytryptophane upon Electroencephalogram in Hepatic Coma, *Proc. Soc. Exp. Biol. Med.* **95**:502, July 1957.

EDUCATIONAL ACTIVITIES

Nov. 16, 1957	F. J. BORGES	Regional Meeting, American College of Physicians, "Clinical Implications of 5-Hydroxytryptophane Metabolism in Liver Disease"
Feb. 9, 1958	F. J. BORGES	TV-MD, "Treatment of Heart Disease"
Feb. 23, 1958	F. J. BORGES, GEORGE ENTWISLE, S. T. R. REVELL, JR.	TV-MD, "Another Look at High Blood Pressure"

NEEDS OF THE DIVISION

Personnel

One Research Fellow in hypertensive renal disease.

One trainee in operation of artificial kidney.

DIVISION OF INFECTIOUS DISEASES

STAFF

ROBERT T. PARKER, A.B., M.D., *Assistant Professor of Medicine; Director, Section of Infectious Diseases*

FRED R. MCCRUMB, JR., M.D., *Assistant Professor of Medicine*

MERRILL J. SNYDER, B.S., M.S., Ph.D., *Assistant Professor of Medicine in Clinical Microbiology*

NORMA K. RAFFEL, B.S., Ph.D., *Instructor in Medicine in Clinical Microbiology*

YASUSHI TOGO, M.D., *Wyeth Fellow in Medicine*

RAYMOND K. RANDALL, D.V.M., *Associate Professor of Clinical Investigation in Medicine*

BENNETT L. ELISBERG, B.A., M.S., M.D., *Instructor in Experimental Medicine*

PATRICIA W. ELISBERG, B.A., M.D., *Assistant Instructor in Experimental Medicine*

GRANTS-IN-AID

<i>Source</i>	<i>Amount</i>	<i>Title</i>
Commission on Immunization, Armed Forces Epidemiological Board	\$38,600.00	Field Studies on Immunization and Related Problems
National Institute for Nervous Diseases and Blindness, NIH	24,000.00	Teratogenic Effects of Asian Influenza Virus
Commission on Epidemiologic Survey, Armed Forces Epidemiological Board . .	24,700.00	Studies on Rift Valley Fever, Related Viruses and Tularemia
Parke-Davis and Company	16,000.00	Unrestricted Grant-in-Aid
Charles Pfizer and Company	6,000.00	Unrestricted Grant-in-Aid
Wyeth Laboratories	5,000.00	Unrestricted Grant-in-Aid
Total	\$114,300.00	

CURRICULAR ACTIVITIES

Infectious disease rounds are conducted once weekly for Senior students and medical resident staff. Section members participate in other courses relating to infectious diseases within the Department of Medicine, and the Postgraduate Educational Program of the School of Medicine.

RESEARCH ACTIVITIES

Arthropod-Borne Viruses of Importance in Human Disease

The study of arthropod-borne viruses is a continuation of projects initiated in 1953 to elucidate the causes of short-term febrile disease in Southeast Asia. Investigations within the Section of Infectious Diseases have been concerned primarily with the immune mechanisms in diseases caused by a large group of these arthropod-borne agents. Extensive cross-neutralization tests employing adult and suckling mice have revealed two major groups which correspond to groups A and B of Casals. These antigenic relationships have been confirmed by cross complement-fixation tests. Several hitherto undescribed viruses isolated from wild-caught mosquitoes in Malaya have been characterized and their relationship to one of these

two groups established. A virus isolated from human serum and subsequently adapted to suckling mice has been characterized antigenically as type 2 dengue. Studies designed to relate artificially acquired neutralizing antibody in mice to immunity are in progress. Similarly, the spectrum of neutralizing antibody in naturally infected human beings, resident for varying periods of time in Malaya, is being investigated.

Twenty-five arthropod-borne viruses have been selected for study in one or more tissue-culture systems. Specific cytopathogenicity has been demonstrated for most of these agents and the adaptation of tissue-culture techniques to this field of virology seems to be well established. Attenuation of one particularly virulent virus suggests the possibility that tissue-culture adapted strains may be useful in the preparation of immunizing agents.

Etiology and Clinical Manifestations of Aseptic Meningitis

During the period 1949-1956, specimens from patients with non-bacterial meningitis were submitted for virus-isolation attempts and serologic tests. Summarization of the total clinical experience in these 400 patients is in progress and further attempts to establish a specific diagnosis are contemplated. Between 1956 and the present, specimens from over 100 patients with this syndrome have been studied in some detail. Tissue culture lines have been inoculated with cerebrospinal fluid, stool, and throat washings in an attempt to isolate causative viruses. To date, 30 agents have been isolated from these specimens; six of these are polioviruses, 24 are now being identified. It is anticipated that this project will continue through 1958 at which time the entire experience will be reported.

Asian Influenza

The studies on influenza have been subdivided into four aspects: 1) diagnosis of influenza cases by serology and isolation of virus; 2) vaccine evaluation; 3) study of institutional outbreaks and 4) investigation of the possible role of influenzal infection in the production of congenital anomalies.

1. Diagnosis of Influenza

By arrangement with the Maryland State Department of Health, the section assumed responsibility for the laboratory diagnosis of Asian influenza for the State of Maryland. To date, serologic tests have been performed on 150 cases and isolation attempts on 175 specimens for which, thus far, 35 positive isolations have been made. Investigation of a number of fatal cases was reported at the annual meeting of the American Federation for Clinical Research in May, 1958.

2. Vaccine Evaluation

The effect of adjuvants, routes of administration and booster response to Asian influenza vaccine were investigated. Approximately 500 individuals were vaccinated and their antibody response evaluated serologically.

3. Institutional Outbreaks of Influenza

Outbreaks of influenza have been epidemiologically and serologically studied at Endowment Hospital, Maryland State Penitentiary, House of Correction for Women at Jessups, and an interesting outbreak in vaccinated patients at Deer's Head Chronic Disease Hospital occurring in mid-February.

4. Under the auspices of NINDB, the laboratory has been chosen as one of the participating laboratories studying the teratogenic effect of influenza. To date, approximately 1,300 serum specimens have been collected from over 900 mothers and tested for the presence of hemagglutination inhibiting antibody against Asian influenza. Respiratory disease history, obstetrical history, and physical examinations of mothers and offspring are being correlated with serologic findings. In addition, this laboratory is acting as reference laboratory for other institutions participating in the study.

Evaluation of Antibiotics

The clinical appraisal of new antibiotic agents in the therapy of acute bacterial infections continues to be a major interest of the Section. Chloramphenicol acid succinate, a highly soluble ester of chloramphenicol for parenteral use, has been employed in the treatment of a variety of infectious diseases. Preliminary results of this study have been published; further publications will follow.

Triacetyl oleandomycin has been used in the treatment of staphylococcal infections and appears to be effective. Body fluid concentrations are not as high as had been anticipated, however, in-vitro activity of this antibiotic against staphylococci is of a high order. Further study of the treatment of infections with triacetyl oleandomycin is contemplated.

Studies on Immunoprophylaxis and Pathogenesis of Tularemia

Experience with induced tularemia in man was reported previously (Annual Report to the Dean, 1957). A long-term study program which will utilize personnel as well as hospital and laboratory facilities at Maryland State penal institutions has been approved by the Superintendent of Prisons. It is anticipated that killed and attenuated tularemia vaccines will be under study during the next year. Under this program, inmate assistance will be utilized and laboratory training afforded those with interest and aptitude. This program, on a continuing basis, will also provide opportunities to study a variety of diseases where controlled population groups are essential.

PUBLICATIONS BY DIVISION OF INFECTIOUS DISEASE STAFF MEMBERS

- McCRUMB, JR., F. R., SNYDER, M. J. and HICKEN, W. J.: The Use of Chloramphenicol Acid Succinate in the Treatment of Acute Infections, *Antibiotics Annual 1957-1958*, New York, Medical Encyclopedia, Inc., p. 837, 1958.
- McCRUMB, JR., F. R., SNYDER, M. J. and WOODWARD, T. E.: Studies on Human Infection with *Pasteurella tularensis*. I. Comparison of Streptomycin and Chloramphenicol in the Prophylaxis of Clinical Disease, *Tr. A. Am. Physicians* 70:74, 1957.
- McCRUMB, JR., F. R., GUERIN, P. F., BAER, G. K. and WOODWARD, T. E.: Clinical and Pathologic Studies in Severe Asian Influenza Infections, *Clinical Research* 6:282, 1958 (Abstract).
- ALEXANDER, A. D., EVANS, L. B., TOUSSAINT, A. J., MARCHWICKI, R. H. and McCRUMB, JR., F. R.: Leptospirosis in Malaya. II. Antigenic Analysis of 110 Leptospiral Strains and Other Serologic Studies, *Am. J. Trop. Med.* 6:871-889, 1957.
- McCRUMB, JR., F. R.: Epidemiologic and Public Health Aspects of Leptospirosis, *Veterinary Medicine* 52:528-531, 1957.
- McCRUMB, JR., F. R.: Tularemia in *H. Conn Current Therapy 1958*, Philadelphia, W. B. Saunders, 1957.
- McCRUMB, JR., F. R.: Typhus Fevers in *H. Conn Current Therapy 1958*, Philadelphia, W. B. Saunders, 1957.

EDUCATIONAL ACTIVITIES

<i>Date</i>	<i>Participant</i>	<i>Occasion and Title</i>
Sept. 9, 1957	F. R. McCrumb, Jr.	Laboratory Resources Committee, CDC, Atlanta, Ga., Influenza Diagnosis
Sept. 12, 1957	F. R. McCrumb, Jr.	American Academy of General Practice, Michigan Branch, Detroit, Antibiotic Therapy
Oct. 1, 1957	F. R. McCrumb, Jr.	East Baltimore Medical Society, Baltimore, Asian Influenza
Oct. 4, 1957	F. R. McCrumb, Jr.	Fifth Annual Symposium on Antibiotics, Washington, D. C., Use of Chloramphenicol Acid Succinate in Acute Infections
Oct. 17, 1957	F. R. McCrumb, Jr.	Mercy Hospital, Baltimore, Recent Advances in Virology
Nov. 17, 1957	F. R. McCrumb, Jr.	National Institutes of Health NINDB, Bethesda, Effect of Asian Influenza on Pregnancy
Dec. 9, 1957	F. R. McCrumb, Jr.	Annual Managers' Sales Conference, Parke, Davis & Co., Detroit, Antibiotics
Jan. 9, 1958	F. R. McCrumb, Jr.	Regional Sales Conferences, Parke, Davis & Co., Atlantic City, N. J., Antibiotic Therapy
Jan. 30, 1958	F. R. McCrumb, Jr.	Regional Sales Conferences, Parke, Davis & Co., Dallas, Tex., Antibiotic Therapy
Feb. 21, 1958	F. R. McCrumb, Jr.	Regional Sales Conferences, Parke, Davis & Co., Chicago, Ill., Antibiotic Therapy
Feb. 28, 1958	F. R. McCrumb, Jr.	Regional Sales Conferences, Parke, Davis & Co., Detroit, Mich., Antibiotic Therapy
Mar. 20, 1958	F. R. McCrumb, Jr.	Regional Sales Conferences, Parke, Davis & Co., Los Angeles, Calif., Antibiotic Therapy
Jan. 14, 1958	F. R. McCrumb, Jr.	Military Medicine and Allied Science Courses, Walter Reed Army Institute of Research, Washington, D. C.
Feb. 3, 1958	F. R. McCrumb, Jr.	Antibiotics Course on Communicable Diseases. Walter Reed Army Institute of Research, Washington, D. C.
Mar. 14, 1958	F. R. McCrumb, Jr.	Plague Commission on Immunization, AFEB, Washington, D. C.
Apr. 18, 1958	F. R. McCrumb, Jr.	Measles Conference, NIH, Bethesda
Apr. 26, 1958	N. K. Raffel	Society of American Bacteriologists, Maryland Branch, Arthropod-Borne Viruses in Tissue Culture, Ft. Detrick, Md.

NEEDS OF THE SECTION

Space

Expansion of the Section staff during the past year has created an acute shortage of laboratory and office space. At the present time, there is need for two additional laboratory rooms and a conference room-library for fellows and other personnel working with clinical records.

Personnel

Coincident with the increase in staff, there has been a marked increase in administrative functions. Accordingly, there is urgent need for additional secretarial assistance in the form of a senior stenographer for the preparation of manuscripts and processing of reports.

DIVISION OF LEGAL MEDICINE

STAFF

RUSSELL S. FISHER, B.S., M.D., *Professor of Legal Medicine*

HENRY C. FREIMUTH, B.S., M.S., Ph.D., *Associate Professor of Legal Medicine*

RICHARD LINDENBERG, M.D., *Associate in Legal Medicine*

ELLA FREYTAG, *Research Assistant*

GRANTS-IN-AID

Army Chemical Center,	Studies of the Morphological Effects of Chemical
Edgewood, Md	\$24,262 and Mechanical Trauma to the Nervous System

CURRICULAR ACTIVITIES

Twelve lectures covering Jurisprudence, Malpractice, Graduate Training in Medicine and Business Aspects of Medical Practice.

RESEARCH ACTIVITIES

Continuation of research in the pathology of brain trauma and related medicolegal problems.

PUBLICATIONS BY DIVISION OF LEGAL MEDICINE STAFF MEMBERS

FISHER, R. S.: The Examination of Clothing and Bullets in Medicolegal Cases, *Cur. M. Digest* 24:67, 1957.

FISHER, R. S.: Medicolegal Aspects of Infection, *Bull. School Med. Univ. Maryland* 42:55, 1957.

FISHER, R. S. and LINDENBERG, R.: Seminar in Forensic Pathology: Part I—*Am. J. Forensic Sciences* 2:197, 1957. Part II—*Am. J. Forensic Sciences* 2:203, 1957.

FISHER, R. S. and FREIMUTH, H. C.: Blood Boron Levels in Human Infants, *J. Invest. Dermat.* 30:85, 1958.

FREIMUTH, H. C. and FISHER, R. S.: The Effect of pH and the Presence of Other Elements in Solution on the Absorption of Boron, *J. Invest. Dermat.* 30:83, 1958.

LINDENBERG, R.: Morphology of Cortical Contusions, *A.M.A. Arch. Path.* 63:23, 1957.

FREIMUTH, H. C., WATTS, S. and FISHER, R. S.: Alcohol and Highway Fatalities, *J. Forensic Sciences* 3:65, 1958.

EDUCATIONAL ACTIVITIES

July 1, 1957	R. S. FISHER	Interns at University Hospital, Baltimore, "The Medical Examiner Law"
July 1, 1957	W. V. LOVITT	Interns at The Hospital for the Women of Maryland, Baltimore, "The Medical Examiner Law"
July 1, 1957	P. F. GUERIN	Interns at the Franklin Square Hospital, Baltimore, "The Medical Examiner Law"
July 2, 1957	R. S. FISHER	Interns at the Maryland General Hospital, Baltimore, "The Medical Examiner Law"
July 8, 1957	W. V. LOVITT	Interns at the Union Memorial Hospital, Baltimore, "The Medical Examiner Law"
July 15-18, 1957	R. S. FISHER	Postgraduate Assembly of Texas, Houston, Tex., "Medicolegal Investigations" and "Malpractice"
July 24, 1957	R. S. FISHER	Recruit class of Baltimore County Police, "The Nature & Quality of Medical Evidence"
July 31, 1957	W. V. LOVITT	Recruit class of Baltimore County Police, "Violent Death"
July 31, 1957	H. C. FREIMUTH	Recruit class of Baltimore County Police, "Laboratory Investigation"
Aug. 15, 1957	R. S. FISHER	North Baltimore Kiwanis Club, "The Investigation of Sudden Death"
Sept. 12, 1957	R. S. FISHER	Chester, Pa., Delaware County Medical Society, "The Maryland Medical Examiner Law"
Sept. 17, 1957	R. S. FISHER	Rotary Club of Elkton, Md., "Sudden Death"
Sept. 20, 1957	R. S. FISHER W. V. LOVITT	Annual Meeting of the Medical & Chirurgical Faculty of Maryland at Ocean City, Md.
Oct. 1-5, 1957	R. S. FISHER	Attendance at the meeting of the American Society of Clinical Pathologists and College of American Pathologists in New Orleans, La., as a Councilor from the State of Maryland and to teach in Graduate Workshops for pathologists*
Oct. 2, 1957	R. S. FISHER H. C. FREIMUTH	Teaching in a Workshop on Alcohol Testing held by the Council on Forensic Pathology of the American Society of Clinical Pathologists in New Orleans, La.
Oct. 18, 1957	R. S. FISHER	At Kansas City, Mo., to the Kansas City Academy of Medicine and at the Veterans Administration Hospital in Wadsworth, Kan., "The Maryland Medical Examiner System"

*To present a scientific exhibit on "The Medicolegal Autopsy, Unusual and Obscure Causes of Death" which won first prize and a gold medal.

Oct. 21, 1957	P. F. GUERIN	Recruit class of the Baltimore City Police Department, "Sudden Death"
Oct. 21, 1957	R. S. FISHER	Recruit class of Anne Arundel County Police Department, "The Nature & Quality of Medical Evidence" and "The Medical Examiner Law"
Oct. 21, 1957	H. C. FREIMUTH	Recruit class of Baltimore City Police Department, "Laboratory Investigation"
Oct. 22, 1957	R. S. FISHER	The Maryland Sportsmen's Club, Baltimore, "Medicolegal Investigations"
Oct. 23, 1957	R. S. FISHER	Elkridge Rotary Club, Md., "The Investigation of Sudden Death"
Oct. 24, 1957	R. S. FISHER	Roland Park Presbyterian Church Men's Club, "The Medicolegal Autopsy"
Oct. 31, 1957	R. S. FISHER	Seminar in Homicide Investigation for State Police at Harvard Medical School, Boston, Mass.:
		"Alcohol, Accidents and Crime"
		"Death by Conflagration: Bodies Found in Burned Buildings"
		"Abortion"
		"Demonstration of Laboratory Tests Commonly Used in Homicide Investigation"
		"Demonstration of Gunshot Targets"
		"Post Mortem Artefacts"
Nov. 9, 1957	R. S. FISHER P. F. GUERIN W. V. LOVITT	Attendance at the Fall Meeting of the Maryland Society of Pathologists at National Institutes of Health, Bethesda, Md.
Nov. 12, 1957	R. S. FISHER	Rotary Club of Arbutus, Halethorpe, Md., "The Investigation of Sudden Death"
Nov. 22, 1957	R. S. FISHER	Men's Club of Towson Presbyterian Church, "The Investigation of Sudden Death"
Nov. 27, 1957	R. S. FISHER	Kiwanis Club of Dundalk, Md., "Medicolegal Investigations"
Dec. 2, 1957	R. S. FISHER H. C. FREIMUTH	Workshop on Alcohol Testing held in Philadelphia, Pa., by the American Society of Clinical Pathologists, Council on Forensic Pathology
Dec. 5,6, 1957	R. S. FISHER	Participation in a panel on Trauma and Cancer at the American Medical Association meeting in Philadelphia, Pa.
Dec. 27, 1957	P. F. GUERIN	Recruit class of the Baltimore City Police Department, "The Maryland Medical Examiner Law"
Dec. 30, 1957	W. V. LOVITT	Recruit class of the Baltimore City Police Department, "Violent Death"
Jan. 9, 1958	R. S. FISHER	Washington, D. C., Pathology Society, "The Seamaster Crash"

Jan. 13, 1958	R. BLANKE	Johns Hopkins University Undergraduate Biology Club, "Poisons & Poisonings"
Jan. 14, 1958	H. C. FREIMUTH	Holy Name Society of Lady of Victory Church, "Science & Sudden Death"
Jan. 14, 1958	R. S. FISHER	Baltimore City Medical Society, Anesthesiology Section, "Medicolegal Aspects of Anesthesia"
Jan. 29, 1958	R. S. FISHER	Mt. Alto Veterans Hospital in Washington, D. C., "Poisoning"
Feb. 1, 1958	R. S. FISHER P. F. GUERIN W. V. LOVITT	Joint Meeting of the Obstetrical and Gynecological Society and the Maryland Society of Pathologists at the Medical and Chirurgical Faculty. Panel discussion on "The Current Status of Cytology in Maryland" with Dr. Fisher as the moderator
Feb. 4, 1958	R. S. FISHER	Anne Arundel County Police Recruit class, "Maryland Medical Examiner Law" and "The Investigation of Sudden Death"
Feb. 10, 1958	H. C. FREIMUTH	Bon Secours Nurses Staff, "Chemistry and Sudden Death"
Feb. 11, 1958	R. S. FISHER	Police-in-Service School, "Sudden and Violent Death" and "Laboratory Procedures"
Feb. 11, 1958	H. C. FREIMUTH W. V. LOVITT H. C. FREIMUTH	Recruit class of the Baltimore County Police Department, "The Maryland Medical Examiner Law" and "Laboratory Procedures"
Feb. 21, 1958	R. S. FISHER	Meeting of the Committee on Traffic Safety of the Medical & Chirurgical Faculty of Maryland
Feb. 26-28- Mar. 1, 1958	R. S. FISHER H. C. FREIMUTH	Attendance at the annual meeting of the American Academy of Forensic Sciences in Cleveland, Ohio. Dr. Fisher as General Program Chairman in charge of the meeting and also on the Executive Council and Dr. Freimuth as Section Chairman of the Toxicology Section
Feb. 27, 1958	P. F. GUERIN	Catonsville Exchange Club, "The Investigation of Sudden Death"
Mar. 4, 1958	R. S. FISHER	Women's Medical College, Philadelphia, Pa., "The Investigation of Sudden Death"
Mar. 6, 1958	R. S. FISHER	Southern Police Institute, Louisville, Ky., "Blunt Injury, Gunshot Wounds, Rape, Abortion, Drowning and Burned Bodies"
Mar. 21, 1958	H. C. FREIMUTH	Recruit class, State Police, "Laboratory Procedures"
Mar. 24, 1958	H. C. FREIMUTH	Soroptimists Club of Baltimore, "Poisons"
Mar. 27, 1958	R. BLANKE	Forest Park High School Biology Club, "Poisons and Laboratory Procedures"
Apr. 10, 1958	W. V. LOVITT	Recruit class of State Police, "The Maryland Medical Examiner Law"

Apr. 11, 1958	R. S. FISHER	Recruit class of State Police, "Violent Death"
Apr. 15, 1958	R. S. FISHER	Maryland Academy of Surgery, "Suicide vs. Accident"
Apr. 22, 1958	R. S. FISHER	Southern Police Institute, Louisville, Ky., "Blunt Injury, Rape, Abortion, Identification, Drowning, Gunshot Wounds and Burned Bodies"
Apr. 23, 1958	H. C. FREIMUTH	Western Maryland Section of the American Chemical Society, "Chemistry and Sudden Death"
Apr. 27, 1958	H. C. FREIMUTH	Maryland Section of the American Chemical Society, "Simple Tests for Poisons Adaptable for Lecture Demonstrations or Class Experiments"
May 2, 1958	R. S. FISHER	Lions Club of Salisbury, Md., "Medicolegal Investigations"
May 8, 1958	R. S. FISHER	At a Seminar in Homicide Investigation for State Police at Harvard Medical School, Boston, Mass.: "Alcohol, Accidents and Crime" "Death by Conflagration: Bodies Found in Burned Buildings" "Abortion" "Demonstration of Gunshot Targets"
May 15, 1958	H. C. FREIMUTH	The Maryland Society District Sanitarians, "Poisons"
May 22, 1958	R. S. FISHER	Christ Church Men's Group, "Medicolegal Investigations"
May 28, 1958	P. F. GUERIN	Northwest Optimist Club of Baltimore at Arlington Methodist Church, "Functions of the Medical Examiner's Office"
June 5, 1958	R. S. FISHER	Anne Arundel County Bar Society, Annapolis, Md., "Medicolegal Investigations"
June 9, 1958	H. C. FREIMUTH	Wicomico County Medical Society, "Poisons"
June 10, 1958	R. S. FISHER	Maryland State Funeral Directors Association, "Relationships Between Funeral Directors and Medical Examiner"
June 11, 1958	R. S. FISHER H. C. FREIMUTH	Recruit class of Baltimore County Police Dept., "The Maryland Medical Examiner Function" and "Laboratory Procedures"
June 22-28, 1958	R. S. FISHER	Attendance at the annual meetings of the American Medical Association in San Francisco, Calif., to present an exhibit on "The Medicolegal Autopsy, Unusual and Obscure Causes of Death" and to hold another Workshop on Chemical Testing under the sponsorship of the American Society of Clinical Pathologists, Council on Forensic Pathology

MEDICAL WARD SERVICE

STAFF

JULY 1957-JUNE 1958

Residents:

DR. JOSEPH C. FITZGERALD

DR. ROBERT T. SINGLETON

Trainee in Cardiology:

DR. LUIS FELIPE GONZALEZ

RH Fellow in Medicine:

DR. HOWARD D. COHN

Fellow in Endocrinology:

DR. JOHN S. STAUFFER

Fellow in Dermatology:

DR. JOAN RASKIN

DR. KEN HASHIMOTO

Fellow in Hypertension:

DR. Y. C. LEE

Fellow in Infectious Diseases:

DR. YASUSKI TOGO

Senior Assistant Residents:

DR. DONALD DEMBO

DR. HARRIS LOVICE

DR. RALPH GORTEN

DR. JOSE RAMIREZ

DR. GIRAUD FOSTER

DR. STEVEN TOMS

DR. MARVIN GOLDINER

DR. HARRY HERBST

DR. THOMAS DAVIS

DR. MORTON KRAMER

DR. MILTON MILLER

DR. DAVID LEVY

Junior Assistant Residents:

DR. J. EDWARD KELLY, JR.

DR. REGINALD BEAVAN

DR. WILLIAM GILLEN

DR. ROBERT RUSCHE

DR. GILBERT HURWITZ

DR. H. COLEMAN KRAMER

DR. WILLIAM C. COHEN

Straight Medical Interns:

DR. WILLIAM FISHBEIN

DR. MORTON SCHMUCKLER

DR. GERALD WAGGER

DR. FRANKLIN SCHWARTZ

SUBSPECIALTY SUMMARY—JULY 1957-JUNE 1958

Number of Diagnoses

Cardio-Vascular	623
Endocrine and Metabolism	203
Gastro-Intestinal	118
Hematology	61
Infectious Disease	193
Neurological	266

Number of Diagnoses

Respiratory	288
Genito-Urinary	87
Tumors	115
Arthritis and Collagen Disease	60
Dermatology	26
Miscellaneous	63

JULY 1957 - JUNE 1958

	<i>Admissions</i>	<i>Discharges</i>	<i>Deaths</i>	<i>Autopsies</i>	<i>% Autopsies</i>
July, 1957	136	128	24	18	75%
Aug.	119	129	22	15	68%
Sept.	133	116	23	13	57%
Oct.	175	175	37	16	47%
Nov.	148	165	27	17	63%
Dec.	140	141	25	17	68%
Jan., 1958	165	136	26	18	67%
Feb.	130	139	29	23	79%
Mar.	137	138	21	10	47%
Apr.	134	133	12	6	50%
May	154	165	21	14	66%
June	133	137	19	12	63%
TOTAL:	1,704	1,702	286	179	62.5%

SOURCE OF ADMISSIONS—JULY 1957-JUNE 1958

	<i>Accident Room</i>	<i>Out Patient Dept.</i>	<i>L.M.D.</i>	<i>Medical Care</i>	<i>State Inst.</i>	<i>Un-classified</i>	<i>Trans.</i>	<i>Total</i>
July, 1957	42	45	26	12	4	1	7	137
Aug.	51	22	23	12	1	4	6	119
Sept.	40	38	31	13	2	2	8	134
Oct.	92	24	33	19	3	4	7	182
Nov.	72	26	28	16	3	4	0	149
Dec.	72	21	16	19	4	3	6	141
Jan., 1958	78	39	29	11	3	3	3	166
Feb.	67	24	23	10	4	1	1	130
Mar.	56	33	27	8	3	0	5	132
Apr.	48	27	30	11	6	1	7	130
May	70	43	26	15	0	0	4	158
June	51	28	29	11	2	3	2	126
TOTAL:	739	370	321	157	35	26	56	1,704

<i>Diagnoses</i>	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July '57</i> <i>June '58</i>
<i>Cardio-Vascular:</i>							
Arrhythmias	1	1	1	1	3	4	33
Arteriosclerosis, generalized	4	3	4	4	4	7	26
Arteriosclerotic Heart Disease	11	6	6	5	10	14	131
Congenital Heart Disease	0	2	2	0	0	1	12
Congestive Heart Failure	3	3	0	3	2	9	53
Pericardium, Disease of							
Pericarditis, uremic	0	0	0	0	0	0	2
Pericarditis, metastatic	0	0	0	0	0	1	1
Pericarditis, idiopathic	1	0	1	1	0	1	4
Pericarditis, pyogenic	0	0	0	1	0	0	1
Myocardial Infarction	6	9	11	11	9	7	100
Rheumatic Heart Disease	6	6	10	9	9	5	77
Hypertensive Cardiovascular Disease	3	7	6	4	10	9	100
Luetic Cardiovascular Disease	1	1	0	0	1	0	9
<i>Miscellaneous:</i>							
Coronary insufficiency	0	0	1	0	0	1	2
Cor pulmonale	0	0	0	0	0	1	12
Other: (including vascular)	5	1	2	3	8	0	25
Thyrototoxic Heart Disease	0	1	0	0	0	0	1
Acute Rheumatic Fever	0	0	0	0	0	0	4
High Output Failure	0	0	0	0	0	0	1
Pulmonary hypertension	0	0	0	0	0	0	1
Psychophysiologic heart disease	0	0	0	0	0	0	2
Ruptured aneurysm	0	0	0	0	0	0	1
Myocarditis	0	0	0	0	0	0	4
Edema of legs (c.u.)	0	0	0	0	0	1	1
	41	40	44	42	56	61	623
<i>Endocrine & Metabolism:</i>							
Diabetes Mellitus	12	6	11	13	11	11	140
Pituitary:							
Acromegaly	0	0	0	1	0	2	3
Adenoma	0	0	0	0	1	0	1
Thyroid:							
Hypothyroidism	0	0	0	0	2	0	4
Hyperthyroidism	1	3	1	4	5	2	17
Goiter, diffuse, non-toxic	1	0	1	0	0	0	3
Goiter, diffuse, toxic	0	0	0	0	0	0	8
Goiter, nodular, non-toxic	0	0	0	1	2	3	10
Adrenals:							
Adrenal insufficiency	0	0	0	2	0	0	2
Aldosteronism	0	0	1	0	0	0	1
Aldosteronism primary	0	0	0	0	0	0	1
Miscellaneous:							
Obesity	1	0	1	1	0	0	4
Porphyria	0	0	0	0	0	0	2
Functional hypoglycemia	0	0	0	0	0	1	1
Malnutrition	0	0	0	0	0	1	1
Hirsutism	0	0	0	0	0	0	2
Achondroplasia	0	0	0	0	0	0	1

<i>Diagnoses</i>	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July'57</i> <i>June'58</i>
Polyostotic fibrous dysplasia	0	0	0	0	0	0	1
Other	0	0	0	1	0	0	1
	15	9	15	23	21	20	203

Gastro-Intestinal:

Esophagus:

Esophageal stricture	0	0	0	1	0	0	1
Neuromuscular disorder	0	0	0	0	2	0	2
Rupture	1	0	0	0	0	0	1
Tracheo-esophageal fistula	0	0	0	0	0	0	1
Esophagitis	0	0	0	0	0	0	1
Diverticula of esophagus	0	0	0	0	0	0	1
Esophageal varices	0	0	0	0	0	0	3
Achalasia	0	0	0	0	0	0	1

Stomach:

Peptic ulcer	3	1	2	0	2	1	14
Gastric ulcer	0	0	0	0	0	1	1
Duodenal ulcer	0	0	0	0	0	1	1
Gastritis	0	0	1	1	2	0	9
Hiatus hernia	0	2	0	1	1	0	12
Polyp	0	0	0	0	0	0	1

Small Bowel:

Peptic ulcer	8	6	3	6	4	1	39
Marginal ulcer	0	0	0	0	0	0	2
Diverticulum, duodenal	0	0	0	0	0	0	1
Paralytic ileus	0	0	0	0	0	0	2
Regional ileitis	0	0	0	0	0	0	3
Pylorospasm	0	0	0	0	0	0	1

Large Bowel:

Colitis, undetermined	0	0	0	1	0	0	1
Ulcerative colitis	0	0	0	0	0	1	4
Diverticulosis	0	0	0	0	2	0	7
Irritable bowel syndrome	0	0	1	1	0	4	12
Atonic colon	0	0	0	0	0	0	1

Liver:

Hepatitis, infectious	2	0	1	0	3	0	15
Hepatitis, serum	0	0	0	0	0	0	1
Laennec's cirrhosis	2	8	2	3	6	8	59
Fatty liver	1	0	0	1	0	0	2
Biliary cirrhosis	0	0	0	1	1	0	2

Gall Bladder:

Cholelithiasis	1	1	0	1	0	1	15
Cholecystitis	0	1	0	0	0	0	4

Pancreas:

Pancreatitis, acute	0	0	0	0	0	0	6
Pancreatitis, chronic	0	1	0	1	1	0	5

Miscellaneous:

Gastro-Enteritis (c.u.)	0	0	0	0	0	1	4
Psychophysiological	2	1	0	2	1	0	7
Gastro-Intestinal hemorrhage (c.u.)	0	1	0	2	0	0	6

<i>Diagnoses</i>	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July '57</i> <i>June '58</i>
Post gastrectomy syndrome	0	0	0	0	0	0	1
Proctitis	0	0	0	0	0	0	1
	20	22	10	21	26	19	118
<i>Hematology:</i>							
<i>Anemias:</i>							
Hypochromic, microcytic	1	1	0	0	2	1	14
Pernicious	0	0	1	0	0	0	2
Sickle Cell	0	0	0	3	1	1	5
Hemolytic	0	1	0	1	1	0	6
Macrocytic	0	0	0	0	0	0	2
Primary Refractory	0	0	1	0	1	0	2
<i>Polycythemia:</i>							
Primary	0	1	0	1	0	0	2
Secondary	0	0	0	0	1	0	3
<i>Purpuras:</i>							
Thrombocytopenic, idiopathic	1	0	1	0	0	0	2
Thrombocytopenic, allergic	0	0	0	1	0	0	1
<i>Leukemia:</i>							
Myeloid, acute	0	0	0	0	0	0	2
Lymphatic, acute	0	0	0	1	1	0	4
Lymphatic, chronic	0	2	1	0	0	1	5
<i>Miscellaneous:</i>							
Hemophilia	0	0	0	1	0	0	3
Multiple myeloma	0	0	0	0	1	0	1
Infectious mononucleosis	0	0	0	0	0	0	2
Sickle Cell Trait	0	0	0	0	0	0	1
Thrombocytosis	0	0	0	0	0	0	1
	2	5	4	8	7	3	61
<i>Infectious Diseases:</i>							
<i>Bacterial Diseases:</i>							
Potts disease	0	0	0	0	0	0	2
Tuberculosis, pulmonary	1	3	1	2	4	4	35
Tuberculosis, military	0	0	0	1	0	0	3
Tuberculosis, pleural effusion	0	0	0	0	0	1	1
Tuberculosis, meningitis	0	2	0	1	0	0	6
Tuberculosis, lymphadenitis	1	0	0	1	0	0	2
Tuberculosis, empyema	0	0	0	0	0	1	1
Tuberculosis, peritonitis	0	0	0	0	0	1	1
Tuberculosis, adenitis	0	0	0	0	0	0	2
Tuberculosis, enteritis	0	0	0	0	0	1	1
<i>Pneumococcal:</i>							
Pneumococcal, septicemia	1	2	0	0	0	0	3
Pneumococcal, meningitis	0	0	2	2	1	0	5
Pneumococcal, pneumonia	7	20	13	2	7	0	49
<i>Staphylococcal:</i>							
Staphylococcal, septicemia	1	0	0	1	2	0	7
Staphylococcal, furunculosis	0	0	0	0	1	0	1
Staphylococcal, cellulitis	0	0	0	0	0	0	1
Staphylococcal, pneumonia	2	1	1	1	0	0	7
Staphylococcal, carbuncle	0	0	0	0	0	1	1

<i>Diagnoses</i>	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July '57</i> <i>June '58</i>
Gonococcal, arthritis	0	0	0	1	0	0	1
Subacute Bacterial Endocarditis	0	0	1	1	1	1	6
Localized infection	0	0	0	0	0	0	1
Erysipelas	1	0	0	0	1	0	2
Salmonella	0	0	0	0	0	0	1
Salmonella choleraesuis—septicemia & arthritis	1	0	0	0	0	0	1
Salmonella choleraesuis—meningitis	0	0	0	0	0	1	1
Salmonella choleraesuis	0	0	0	0	1	0	1
Endometritis	0	0	1	0	0	0	1
Septicemia (c.u.)	0	0	0	0	0	0	2
Meningitis, bacterial (c.u.)	1	0	0	0	1	0	3
Klebsiella pneumonia with septicemia	0	1	1	0	0	0	2
Sarcoidosis	0	0	0	0	0	0	2
<i>Viral:</i>							
Aseptic meningitis	0	0	0	0	1	0	6
Encephalitis	0	0	0	0	1	2	4
Atypical pneumonia	0	0	0	0	0	0	1
Non-specific respiratory	0	0	0	0	0	0	8
<i>Spirochaetal:</i>							
Syphilis	0	0	0	1	0	0	9
Enterococcal	0	0	0	0	0	0	1
E. Coli peritonitis	0	0	0	0	0	0	1
<i>Fungus:</i>							
Histoplasmosis	0	0	0	0	0	0	1
Mucormycosis	0	0	0	0	2	0	2
<i>Miscellaneous:</i>							
Infectious mononucleosis	1	0	0	0	0	0	1
Fever of unknown origin	0	0	0	0	1	2	3
Amebiasis	1	0	0	0	0	1	2
Hypogammaglobulinemia	0	0	0	0	0	0	1
	19	29	20	14	23	16	193
<i>Neurology:</i>							
<i>Seizures:</i>							
Seizures, grand mal	4	2	1	2	5	5	34
Seizures, psychomotor	0	0	0	1	0	0	1
Seizures, Jacksonism	0	0	0	0	0	0	1
Convulsive disorder, undetermined	0	0	0	0	0	0	2
Cerebral-Vascular Accident	6	8	9	4	10	15	121
Congenital aneurysm	2	1	0	0	0	0	13
Subdural hematoma	0	0	0	0	0	0	1
<i>Degenerative:</i>							
Multiple sclerosis	0	1	0	1	0	1	6
Parkinson's disease	0	0	1	1	0	1	4
Syringomyelia	0	0	0	0	0	0	1
Syringocephalia	0	0	0	0	0	1	1
Cerebellar ataxia	1	0	0	0	0	0	1
Cerebellar cortical degeneration	0	0	0	0	0	0	1
Primary cortical atrophy	0	0	1	0	0	0	1
Optic atrophy	0	0	0	0	0	0	1
Amyotrophic lateral sclerosis	0	0	0	0	0	0	2
Retinal	0	0	0	0	0	0	1
Demyelinating cord disease	0	0	0	1	1	0	2

Diagnoses

*Jan. Feb. Mar. Apr. May June July '57
June '58*

Syphilis:

C.N.C. lues	1	0	1	1	0	0	8
Meningovascular	0	0	0	0	0	0	1
Paralytic lues	0	0	0	1	0	0	1
Tabes dorsalis	0	0	1	0	0	0	4
Bell's palsy	0	0	0	1	1	1	4
Paralysis left recurrent laryngeal	0	0	0	0	0	0	1
Meningitis	0	0	0	0	0	0	6
Polynecritis	0	0	1	0	0	0	1
Radiculitis	1	0	0	2	1	0	4
Migraine	0	0	2	0	0	0	2

Miscellaneous:

Chronic brain disease, vascular, senile	1	2	1	0	0	5	14
Meniere's syndrome	0	0	1	0	0	0	2
Brain abscess	0	0	0	0	0	0	2
Transverse myelitis	0	1	0	0	0	0	1
Delirium tremens	1	0	0	1	1	2	14
Nerve deafness	0	0	0	0	0	0	1
Optic neuritis	0	0	0	0	0	0	1
Encephalopathy (c.u.)	0	0	0	0	0	0	1
Retinal vein thrombosis	0	0	0	0	0	0	1
Calcified vascular anomaly	0	0	0	0	0	0	1
Hemiplegia (c.u.)	0	0	0	0	0	0	1
Spina Bifida	0	0	0	0	0	0	1
Peripheral neuropathy	0	0	0	0	0	0	5
Uncinate herniation	0	0	0	0	0	0	1
Spinal cord myelopathy	0	0	0	0	0	0	3
Anterior spinal artery thrombosis	0	0	0	0	0	1	1

17 15 19 15 18 32 266

Psychiatry:

Psychopathic personality	0	0	0	0	0	1	2
Psychoneurosis	0	1	0	1	1	0	6
Hysteria	0	0	1	1	0	5	7
Anxiety reaction	0	0	0	0	0	0	2
Conversion reaction	0	0	0	0	0	0	4
Mental retardation	0	0	0	0	0	0	2
Mental deficiency	0	0	0	0	0	1	1
Presenile dementia	0	0	0	0	0	0	1
Schizophrenia	0	1	1	0	2	0	6

0 2 2 2 3 7 31

Respiratory Disease:

Pneumonia, lobar	7	20	13	2	7	0	96
Pneumonia	0	0	0	0	0	9	9
Bronchopneumonia	0	2	1	1	0	0	12
Pneumonia, Friedlanders	0	1	1	3	0	0	5
Pneumonia, atypical	4	1	0	0	2	0	7
Pneumonia, aspiration	0	0	0	1	0	0	1
Bronchitis	3	6	2	0	3	0	28
Bronchial asthma	3	3	3	0	1	1	32
Bronchiectasis	0	0	1	2	4	1	17

<i>Diagnoses</i>	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July '57</i> <i>June '58</i>
Lung abscess	0	0	0	0	0	0	6
Pulmonary infarction	2	0	2	0	1	2	10
Pulmonary fibrosis	1	0	1	0	0	0	3
Emphysema	3	3	1	4	1	2	14
Emphysema, obstructive	0	0	0	0	0	0	22
Pneumothorax, spontaneous	0	0	1	0	1	0	2
Hemopneumothorax	0	0	0	0	0	0	2
Pleuritis	1	0	0	1	0	0	2
Pleuritis with effusion	0	0	0	0	0	0	7
Pleurodynia	0	0	0	0	1	0	1
Broncho-pleural fistula	0	0	0	0	1	0	1
Pleurisy, non-tuberculous	0	0	0	0	0	1	1
Hemoptysis (c.n.)	0	0	0	0	0	0	1
Sinusitis	0	0	0	0	0	0	1
Pulmonary granuloma	0	0	0	0	0	0	1
Paralysis diaphragm	0	0	0	0	0	0	2
Pulmonary embolus	0	0	0	0	0	0	5
	24	36	26	14	22	16	288

Genito-Urinary:

Glomerulonephritis, acute	0	1	0	1	2	0	13
Glomerulonephritis, chronic	0	1	0	1	1	0	6
Nephrosis	0	1	0	1	1	0	5
Pyelonephritis	0	0	0	0	0	4	4
Pyelonephritis, acute	3	0	0	1	1	0	17
Pyelonephritis, chronic	1	1	0	4	1	0	11
Nephrolithiasis	0	0	0	0	1	0	1
Polycystic disease of kidney	0	0	0	0	0	0	2
Prostatitis	0	0	0	1	0	0	6
Benign prostatic hypertrophy	0	1	0	0	0	4	9
Epididymitis	0	0	0	0	1	0	1
Renal infarction	0	0	0	0	0	0	1
Thrombosis renal artery	0	0	0	1	0	0	1
Agenesis of kidney	0	0	1	0	0	0	1
Hemorrhagic necrosis kidney	0	0	0	0	0	0	1
Inter-capillary glomerulosclerosis	0	0	0	0	0	0	1
Contracted kidney with hypertension	0	0	0	0	0	0	2
Hypospadias	0	0	0	0	0	0	1
Hydronephrosis	0	0	0	0	0	0	1
Cystitis	0	0	0	0	0	0	2
Perinephric abscess	0	0	0	0	0	0	1
	4	5	1	10	8	8	87

Tumors:

Malignant:

Carcinoma, face	0	0	0	0	0	0	1
Carcinoma, tongue, neck	0	0	2	1	0	0	8
Carcinoma, stomach	0	0	0	0	1	0	4
Carcinoma, colon	0	0	3	0	0	1	6
Carcinoma, pancreas	0	1	0	0	0	0	5
Carcinoma, thyroid	0	0	0	0	0	0	2

<i>Diagnoses</i>	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July '57</i> <i>June '58</i>
Carcinoma, prostate	0	0	0	0	1	0	1
Carcinoma, testis	0	0	0	0	0	0	1
Carcinoma, breast	0	0	0	0	0	1	3
Carcinoma, ovary	0	1	0	0	0	0	4
Carcinoma, uterus	1	0	0	0	1	1	3
Carcinoma, lung	1	1	1	1	3	1	16
Carcinoma, esophagus	1	0	0	0	0	1	8
Carcinoma, primary undetermined	0	0	2	1	0	3	10
Carcinoma, bladder	0	0	0	0	0	0	1
Carcinoma, kidney	0	0	0	0	0	0	3
Carcinoma, cervix	0	0	0	0	0	0	1
Carcinoma, larynx	0	0	0	0	0	0	1
Carcinoma, liver	0	1	0	0	0	0	1
Hypernephroma	0	0	0	0	0	1	1
Hodgkin's disease	0	0	2	0	2	0	9
Lymphosarcoma	1	0	0	2	3	0	9
Reticulum cell sarcoma	1	0	0	0	0	0	2
Fibrosarcoma, lung	0	0	0	0	0	0	1
Chondrosarcoma	0	0	0	0	0	0	1
Brain tumor, all types	2	1	1	0	0	0	6
<i>Benign:</i>							
Fibroadenoma	0	0	0	0	0	0	1
Fibroadenoma, breast	0	0	0	0	1	0	1
Eosinophilic granuloma	0	0	0	0	0	0	1
Gastric polyp	0	0	1	0	0	0	1
Craniopharyngioma	0	0	0	0	0	0	1
	8	5	12	6	12	9	115

Arthritis & Collagen Disease:

Rheumatoid arthritis	3	0	2	1	2	2	22
Osteoarthritis	1	0	0	0	0	2	9
Gout	0	1	1	0	2	1	8
Arthritis, cause undetermined	0	0	0	0	1	0	7
Arthralgia (c.u.)	0	0	0	0	0	0	2
Paget's disease	0	0	1	0	0	0	1
Lupus erythematosus, disseminated	0	0	0	0	1	0	5
Lupus erythematosus, systemic	0	0	0	0	0	1	1
Scleroderma	1	1	0	1	0	0	3
Buerger's disease	0	0	1	0	0	0	1
Felty's syndrome	0	0	0	0	0	0	1
Bursitis	0	0	0	0	0	1	1
	5	2	5	2	6	7	60

Dermatology:

Pemphigus	2	0	0	0	0	0	4
Pemphigus, vulgaris	0	0	0	0	0	1	1
Dermatitis, exfoliative	0	0	0	0	0	0	2
Dermatitis, atopic	1	0	0	0	0	0	2
Dermatitis, toxic	0	0	0	0	1	0	3
Dermatitis, contact	0	0	0	0	0	0	3
Neurodermatitis	0	0	0	0	0	0	1

<i>Diagnoses</i>	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July '57</i> <i>June '58</i>
Erythema multiforme	0	0	0	0	0	0	2
Discoid lupus erythematosus	0	0	0	0	0	0	3
Scleroderma	0	0	0	0	0	0	2
Herpes zoster	0	0	0	0	0	0	1
Pityriasis rosea	0	0	0	1	0	0	1
Kaposi's varicelliform eruption	1	0	0	0	0	0	1
	4	0	0	1	1	1	26
<i>Miscellaneous:</i>							
<i>Surgical:</i>							
Fractures	1	1	0	0	1	1	4
Hernias	0	0	0	0	0	1	2
Herniated intervertebral disc.....	0	0	0	0	0	1	1
Spondylolisthesis	1	0	0	2	1	0	4
Transthoracic aortogram	0	0	0	0	0	0	1
Dislocated mandible, chronic	0	0	0	0	0	0	1
Laceration, etc.	0	0	0	0	0	0	2
Infarction of bowel	0	0	0	0	1	0	
Decubitus ulcer	0	0	0	0	0	1	1
Thrombophlebitis*	0	0	0	0	0	0	3
<i>Ophthalmology:</i>							
Cataracts	0	0	0	0	0	0	1
Corneal ulcer	0	0	0	0	0	0	1
<i>Obstetric-Gynecology:</i>							
Decensus uterus	0	0	0	0	0	1	1
Pelvic inflammatory disease	0	0	0	0	0	0	2
Uterine fibroids	0	0	0	0	0	0	1
Cervical polyp	0	0	0	0	0	0	3
Abortion	0	0	0	0	0	0	1
<i>Intoxication, acute:</i>							
Intoxication, with digitalis*	0	1	3	1	3	0	26
Intoxication, with anisoylin	0	0	0	0	0	0	3
Alcoholism, chronic	1	0	0	0	0	0	10
Carbon monoxide poisoning	0	0	1	0	0	0	1
Thorazine with agranulocytosis	0	0	0	0	0	0	2
Barbiturate poisoning	0	0	0	0	0	1	2
Bichloride of Mercury poisoning	1	0	0	0	1	0	2
Narcotic intoxication	0	0	1	0	0	0	1
Bromide	0	0	0	0	0	0	1
Mushroom poisoning	0	0	0	0	0	0	1
Camphorated oil	0	0	0	0	0	0	1
Formaldehyde	0	0	0	0	0	0	1
Acute porphyria	0	0	0	0	0	0	1
<i>Allergy:</i>							
Penicillin reaction	0	0	1	1	0	0	3
Serum sickness	0	1	0	0	0	0	1
Angioneurotic edema	1	0	0	1	0	0	2
No disease found	2	2	1	0	2	0	13
	5	4	7	3	6	6	63

* Also listed under cardiology.

DIVISION OF NEUROLOGY

STAFF

CHARLES VAN BUSKIRK, B.A., M.S., Ph.D., M.D., *Professor of Neurology and Head, Division of Neurology*
 JEROME K. MERLIS, B.S., M.S., M.D., *Professor of Clinical Neurophysiology; Head, Department of Neurophysiology*
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 ALBERTO PORTERA, M.D., M.S., *Instructor in Neurology*
 MORTON D. KRAMER, M.D., *Fellow in Neurology*
 EIICHI OTOMO, M.D., *Fellow in Neurology*

GRANTS-IN-AID

<i>Donor</i>	<i>Amount</i>	
National Institutes of Health	\$ 9,979	Spinal Cord Circulation and Clinical Syndromes Spinal Cord Disease
National Institutes of Health	24,516	Graduate Training Grant in Neurology
National Institutes of Health	15,354	Cooperative Study of the Effectiveness of 1-Asparagine in Control of Seizures
National Institutes of Health	10,339	Motor Mechanisms of Reflex Myclonic Epilepsy

CURRICULAR ACTIVITIES

Freshman Year

Participation in course, "Man and His Environment."

Lectures, demonstrations, and laboratory experiments on EEG for students in Physiology course.

Sophomore Year

Participation in Physical Diagnosis course.

Lecture course—Neurologic Diagnosis.

Participation in teaching of Neuropathology.

Junior Year

Lecture course—Clinical Neurology.

Participation in series of lectures in medicine.

Weekly rounds with Juniors on Medicine clerkship.

Bi-weekly clinicopathologic conference with Department of Pathology.

Weekly clinicopathologic conference—City Hospitals.

Senior Year

Weekly clinical conference—Seniors on medical clerkship.

Weekly Neurological Out-Patient Clinic—University Hospital, Mercy Hospital.

Lectures in Pediatric Neurology each six weeks.

Twice weekly Pediatric Seizure Clinic.

*Other Scheduled Activities in which Students,
Residents and Staff Participate*

Weekly Clinical Neurology Rounds.

Weekly Clinical Neurology Consultation Rounds.

Weekly Pediatric Neurology Conference.

Weekly Neurology-Neurosurgery Conference.

Weekly Neuropathology Conference.

Weekly EEG Conference.

RESEARCH ACTIVITIES

Doctors Otomo and Van Buskirk with Mr. Davidson, student Research Assistant :
Studies of Spinal Cord Circulation.

Doctors Van Buskirk and Enoch Callaway : Tremor Studies.

Doctors Lombardo and Portera : Studies of Hereditary Neurological Diseases.

Dr. Portera : Febrile Convulsions.

Doctors Van Buskirk and Leopold May with Mr. Richard Lavy, Student Fellow :
Bilirubin in Spinal Fluid.

Doctors Van Buskirk, Ruth Baldwin and Samuel Bessman : Use of Asparagine
in Control of Seizures.

Dr. Cotter : Assessment of Therapy in Multiple Sclerosis.

Dr. Lerner : Evaluation of Drugs for Relief of Parkinsonism.

Dr. Teitelbaum : Conditional Reflexes. Experiments in conditioning the uncon-
scious animal are being conducted.

Dr. Teitelbaum : Clinical studies in psychosomatic neurology with consideration
of the psychophysiological and psychodynamic personality processes involved.

Dr. Merlis : Investigations of motor mechanisms of reflex myoclonic seizures in
animals.

Dr. Merlis : Studies of the influence of insulin on evoked potentials in the cortex
of the cat.

Dr. Merlis : Studies of the influence of hypothermia on the EEG of man and the
effect of total cerebral ischemia during hypothermia.

PUBLICATIONS BY DIVISION OF NEUROLOGY STAFF MEMBERS

LERNER, P.: Use of Akineton (new drug) in Treatment of Parkinsonian Disease, paper in
preparation, to be delivered at meeting of Southern Medical Association.

MERLIS, J. K.: The Effect on the Human EEG of Complete Cerebral Ischemia in the Hypo-
thermic State. Abstract, EEG Clin. Neurophysiol. 10:179, 1958.

MERLIS, J. K. and GRENELL, R.: Effects of Insulin on Evoked Cortical Responses in the Cat.

MERRILL, G. G.: Emotional Disorders of Later Life: A Review of Pathogenesis and Treatment
of 100 Cases, Maryland M. J. 6:331, June 1957.

MERRILL, G. G.: Electroshock Therapy in a General Hospital, Maryland M. J. 6:367, July 1957.

MERRILL, G. G.: Sexual Complications of Hypnosis, J. of Experimental Hypnosis 6:138, July
1957.

- MERRILL, G. G.: Prevention of Post-Partum Psychosis, *South. M. J.* 50:1034, August 1957.
- MERRILL, G. G. and COOK, E. E.: The EEG in the Negro: A Comparison of Electrical Activity in the Brain in White and Negro Patients, *J. EEG and Clin. Neurophysiol.* 9:531, August 1957.
- MIYAZAKI, M.: A Note on Determination of Transaminase Activity in Bloody Cerebrospinal Fluid, *Bull. School Med. Univ. Maryland* 42:61, July 1957.
- MIYAZAKI, M.: Glutamic Oxalacetic Transaminase in Cerebrospinal Fluid, *J. Nerv. & Ment. Dis.* 126:169, February 1958.
- TEITELBAUM, H. A.: Defensive Verbal Communication Processes in Psychotherapy. Hoch and Zubin (Ed.) *Psychopathology of Communication*, New York, Grune & Stratton, 1958.
- GLEIDMAN, L. H., GANTT, W. H. and TEITELBAUM, H. A.: Some Implications of Conditional Reflex Studies for Placebo Research. *Am. J. Psychiat.* 113:1103, 1957.
- VAN BUSKIRK, C.: Neuromedical Conditions Resembling Surgical Problems: Chapter in *Pediatric Neurosurgery* by Ira Jackson (in press).
- VAN BUSKIRK, C.: *Treatment of Cerebral Hemorrhage, Current Therapy*, 1959 (in press).

EDUCATIONAL ACTIVITIES

- | | | |
|----------------------------|-------------------------------|--|
| July 1957 | G. G. MERRILL | Series of four lectures in Neurology to student nurses at Mercy Hospital, Baltimore |
| Aug. 1957 | P. LERNER | "Acute Neuropsychiatric Emergencies," lecture to Interns, Lutheran Hospital, Baltimore |
| Aug. 1957 | P. LERNER | "We, the Mentally Ill" (film), Beth Jacob Synagogue B'nai Brith Congregation |
| Sept. to Dec. 1957 | A. PORTERA | Fifteen lectures in Clinical Neurology, Springfield State Hospital |
| Oct. 1957 | P. LERNER | Talk: "Is Mental Illness Increasing?" Liberty Jewish Center, Baltimore |
| Oct. 1957 | J. K. MERLIS | Paper: The Effect of the Human EEG of Complete Cerebral Ischemia in the Hypothermic State. Annual meeting of American EEG Soc. |
| Oct. 1957 through May 1958 | G. G. MERRILL | Monthly lectures on "Mental Health and Religion," St. Mary's Church in Hampden, Baltimore |
| Oct. 1957 | G. G. MERRILL | Institute of Psychiatric Treatment, Philadelphia State Hospital, Philadelphia, Pa. |
| Oct. 1957 | C. VAN BUSKIRK | Lecture: "Amyotrophic Lateral Sclerosis," Franklin Square Hospital |
| Nov. 1957 | G. G. MERRILL | Address on "Psychiatry and Religion," Christian Association, Gilman Country School in Baltimore |
| Nov. 1957 | P. LERNER | Talk: "Psychiatry and Religion," Greenspring Valley Synagogue, Baltimore |
| Nov. 1957 | C. VAN BUSKIRK
M. MIYAZAKI | Paper: "Glutamic Oxalacetic Transaminase in Cerebrospinal Fluid," Regional Meeting, American College of Physicians, New York |
| Dec. 1957 | J. K. MERLIS | Presidential address: American Epilepsy Soc. |
| Mar. 1958 | G. G. MERRILL | Medical Economic Forum, Washington, D. C. |
| Apr. 1958 | G. G. MERRILL | Address: "Neurosis and the Christian," Christian Medical Society, Hereford, Md. |

Apr. 1958	J. K. MERLIS	Lecture: "The Convulsive Disorders," course in Neurology for the General Practitioner, Annual Meeting, American Academy of Neurology
Apr. 1958	J. K. MERLIS	Lecture: "Effects of Drugs on the EEG," course in Electroencephalography, Annual Meeting, American Academy of Neurology
Apr. 1958	C. VAN BUSKIRK	Talk: "Cerebral Vascular Disease," Staff, St. Agnes Hospital, Baltimore
Apr. 1958	C. VAN BUSKIRK	Talk: "Strokes," Medical Institute for Lawyers, Baltimore
Apr. 1958	E. F. COTTER	Discussion Series: Problems in Neurology, Maryland General Hospital
May 1958	P. LERNER	Talk: "The Approaches of the Psychiatrists and the Clergymen to Emotionally Disturbed Patient's Needs," Johns Hopkins Hospital
May 1958	J. K. MERLIS	Panel Discussion on EEG, Exchange Club, Hagerstown, Md.
May 1958	C. VAN BUSKIRK	Talk: "Diagnosis and Management of Convulsive Disorders," Maryland Academy of General Practice, Baltimore
June 1958	C. VAN BUSKIRK	Baltimore Health Department TV Program: "Strokes"

Continuing Activities

Throughout the year the Neurology staff has conducted conferences in clinical Neurology on a weekly basis at the Montebello State Chronic Disease Hospital.

Doctors Lombardo and Portera have conducted seizure clinics meeting monthly at Frederick, Hagerstown, and Salisbury, Md.

Dr. Van Buskirk has acted as a member of the Chronic Disease Advisory Committee for the Maryland State Board of Health and of the Graduate Training Grant Committee of the National Institute of Neurological Diseases and Blindness, National Institutes of Health, Bethesda, Md.

Space

NEEDS OF THE DIVISION

One of the chief needs is office space for personnel.

Personnel

The Division of Neurology is fortunate in having adequate personnel to implement their program as it now stands. Most of these people are being supported on grant funds. It is the belief of this division that this manner of support does not produce stability and that increasing University support is desirable and imperative.

Research Funds

As mentioned in last year's report, the complete reliance upon grants for research funds is undesirable and frequently leads to waste. It is most desirable that each division have funds for research use which do not have moral or legal restrictions regarding their expenditure and which are from the University and can be depended upon as a regular part of the division budget.

OUTPATIENT DEPARTMENT

STAFF

GEORGE ENTWISLE, B.S., M.D., *Assistant Professor of Medicine and Director of Medical Clinic*

JOSEPH C. FURNARI, B.S., M.D., *Associate in Medicine, Assistant Director of Medical Clinic*

Attending Physicians in Medical Clinic:

CONRAD ACTON, M.D., *Associate in Medicine*
ROBERT BAUER, M.D., *Assistant Professor of Medicine*

LOUIS BLUM, M.D., *Associate in Medicine*
FRANK BORGES, M.D., *Associate in Medicine*
JOSEPH BRONUSHAS, M.D., *Assistant in Medicine*

PAUL BYERLY, M.D., *Associate in Medicine*
JONAS COHEN, M.D., *Associate in Medicine*
THOMAS CONNOR, M.D., *Assistant Professor of Medicine*

WILLIAM COX, M.D., *Associate in Medicine*
MARVIN DAVIS, M.D., *Instructor in Medicine*
JOHN DEHOFF, M.D., *Associate in Medicine*
CARL EBELING, M.D., *Assistant Professor of Medicine*

WILLIAM ESMOND, M.D., *Assistant in Medicine*

DOROTHY FOGEL, M.D., *Instructor in Medicine*
SHELDON GREISMAN, M.D., *Associate in Medicine*

LEWIS P. GUNDRY, M.D., *Associate Professor of Medicine*

WILLIAM HELFRICH, M.D., *Associate in Medicine*

HENRY W. D. HOLLJES, M.D., *Associate in Medicine*

WALTER KARFGIN, M.D., *Associate in Medicine*

JAMES KARNS, M.D., *Assistant Professor of Medicine*

MORTON KRIEGER, M.D., *Instructor in Medicine*

FRANK KUEHN, M.D., *Assistant in Medicine*

JOHN LEGGE, M.D., *Assistant Professor of Medicine*

KURT LEVY, M.D., *Assistant Professor of Medicine*

HENRY MARRIOTT, M.D., *Associate Professor of Medicine*

JOSEPH MATCHAR, M.D., *Instructor in Medicine*

DONALD MINTZER, M.D., *Associate in Medicine*

JOSEPH MUSE, M.D., *Instructor in Medicine*

ROBERT PARKER, M.D., *Assistant Professor of Medicine*

SAMUEL REVELL, M.D., *Associate Professor of Medicine*

SEYMOUR RUBIN, M.D., *Assistant in Medicine*

LEONARD SCHIERLIS, M.D., *Assistant Professor of Medicine*

JOSEPH SHEAR, M.D., *Assistant in Medicine*

A. A. SILVER, M.D., *Assistant in Medicine*

VERNON SMITH, M.D., *Associate in Medicine*

JOHN STAUFFER, M.D., *Fellow in Medicine*

STANLEY STEINBACH, M.D., *Assistant in Medicine*

JOHN STRAHAN, M.D., *Instructor in Medicine*

KYLE SWISHER, M.D., *Associate in Medicine*

STEPHEN VANLILL, M.D., *Associate in Medicine*

W. KENNEDY WALLER, M.D., *Associate in Medicine*

CHARLES WILLIAMS, M.D., *Instructor in Medicine*

THEODORE WOODWARD, M.D., *Professor of Medicine*

JOSEPH WORKMAN, M.D., *Assistant Professor of Medicine*

CURRICULAR ACTIVITIES

Each member of the Senior Class spends four weeks in the Medical Clinic of the Outpatient Department. The student spends half his day in the general medical clinic and the other half of his day rotating through one of the Medical Subspecialty Clinics. A weekly session is held with students who report to their classmates on various subjects they have studied.

The home visit program was continued during the last school year. Senior students follow the patients at home under the immediate supervision of the General Practice

Resident. Most of the patients seen under this program had acute temporary illnesses.

PUBLICATIONS BY OUTPATIENT STAFF MEMBERS

- SILVER, A. H.: Effect of Chronic Administration of Tolbutamide (Orinase) in Aged Diabetics, Maryland M. J. 6: 1957.
 GUNDRY, L. P.: History of the Board of Medical Examiners of Maryland, Maryland M. J. 7:5, 1958.
 GUNDRY, L. P.: Organization and Operation of the Board of Medical Examiners of Maryland, Maryland M. J. 7:123, 1958.
 GUNDRY, L. P.: Board of Medical Examiners: Revocation of License, Maryland M. J. 7:185, 1958.

EDUCATIONAL ACTIVITIES

Feb. 1958	A. A. SILVER	Oral Management of Diabetics, Mt. Sinai Hospital
May 1958	A. A. SILVER	Diabetic Detection, Maryland State Health Officers
Nov. 1957	C. ACTON	Common Sense in Overweight, Maryland Academy of Medicine and Surgery
Apr. 1958	V. W. SMITH	Esophageal Hiatus Hernia, Doctor's Hospital
Apr.-May 1958	V. W. SMITH	Acute Corrosive Esophagitis, Doctor's Hospital and Franklin Square Hospital
Apr. 1958	V. W. SMITH	Fatal Penicillin Reactions: Sensitivity Testing Program, Franklin Square Hospital
Mar. 1958	G. ENTWISLE	Chemoprophylaxis in Infectious Diseases, Walter Reed Army Medical Center
Oct. 1957	G. ENTWISLE	The Pathogenesis of Bronchiectasis, Fort Howard VA Hospital
Jan. 1958	L. P. GUNDRY	Moderator Panel on Alcoholism, Baltimore City Medical Society

NEEDS OF THE DIVISION

Space

This continues to be a growing problem for both the Medical and Medical subspecialty clinics. This problem will be solved only when we have adequate facilities in a new Outpatient Department Building.

Personnel

The daily case load in the Outpatient Department, particularly in the medical and medical subspecialty clinics, is steadily increasing. Most of the subspecialty clinics are adequately staffed. The general medical clinic is understaffed for the volume of patients treated. The senior medical students have had to see more patients per day than is ideal for the teaching program. Since our goal is to give medical care and teaching of high quality, some consideration will have to be given to the problem of limiting the patients seen in some areas in the Outpatient Dept.

The number of attending men in the Medical Clinic is increasing each year and this has improved the teaching program for the Senior students. Throughout the year, residents from the Maryland General Hospital continued their rotation through the Medical Clinics. This has been a most satisfactory affiliation.

An additional full-time secretary is needed to handle the increasing work in the Medical and subspecialty clinics.

Equipment

The additional equipment need in the area includes another dictating machine, secretarial desk and typewriter. Approximately one dozen of the wooden examining tables need to be replaced. A wheelchair is also needed for this area. The teaching needs include a 35 mm. slide projector and a wall-type screen.

DIVISION OF PULMONARY DISEASES

STAFF

WILLIAM S. SPICER, JR., M.D., *Associate in Medicine and Head of the Division*

LEON H. HETHERINGTON, M.D., *Associate Professor of Medicine*

PATRICK B. STOREY, M.D., *Assistant Professor of Medicine*

MEYER W. JACOBSON, A.B., M.D., *Assistant Professor of Medicine*

MANUEL LEVIN, A.B., M.D., *Instructor in Medicine*

CURRICULAR ACTIVITIES

Pulmonary disease rounds, a pulmonary disease conference and a Chest-Surgery conference are conducted weekly for students and resident staff. A Chest clinic meets three times a week. Rounds are conducted weekly at Loch Raven VA hospital by Dr. Spicer for medical students and staff. The bacteriology of tuberculosis is presented by Dr. Spicer in the sophomore Microbiology course. Section members participate in other conferences and courses within the Department of Medicine.

RESEARCH ACTIVITIES

Effect of Comparison Drug on INH Blood Levels

The Tuberculosis Research Laboratories has performed INH bio-assays in parallel with the laboratory of the Colorado Foundation for Research in Tuberculosis. These were done on sera from patients at the Loch Raven VA hospital who were receiving Isoniazid with either PAS or cycloserine. The results show a statistically significant difference between the effect of PAS and CS on INH serum levels.

Studies on an Enzymatic Reaction Affecting Antibiotic Activity

Studies are being done to elucidate possible mechanisms for the effect of PAS on INH serum levels. These studies contradict the presently held view that INH and PAS compete for acetylation and demonstrate another pathway.

PUBLICATIONS BY PULMONARY DISEASE STAFF MEMBERS

JOHNSON, JR., R. L., SPICER, JR., W. S., BISHOP, J. M. and FORSTER, R. E.: Simultaneous Measurements of Pulmonary Capillary Blood Flow and Blood Volume, Tissue Volume, and Diffusing Capacity in Man, *The Physiologist* 1:46, 1958.

SPICER, JR., W. S., JOHNSON, JR., R. L., BISHOP, J. M. and FORSTER, R. E.: Relationship Between Pulmonary Capillary Blood Flow, Pulmonary Diffusing Capacity, and Pulmonary Blood Volume at Rest and Exercise, *Amer. Rev. Tuberc. and Pul. Dis.*, Fall 1958. Presented to the National Tuberculosis Association, May 19, 1958.

DAVIS, R. L. and SOTREY, P. B.: Determination of Serum Free Isonicotinic Acid Hydrazide Levels Utilizing C¹⁴ Labeled Isoniazid and Vanillin, *Trans. 17th Conf., Chemotherapy of Tuberc., VA-Armed Forces*, p. 271, 1958.

NEEDS OF THE DIVISION

Space

Pulmonary Physiology. Space is needed to develop an adequate pulmonary physiology laboratory aimed at the basic study of the pulmonary capillary bed and clinical studies on the definitive early diagnosis of pulmonary insufficiency (in contradistinction to disability). Emphasis will be placed on emphysema, infectious diseases of the lungs and the effects of anesthesia on pulmonary physiology.

Tuberculosis. Space is needed for:

1. Research studies on the large scale intensive therapy of tuberculosis (Loch Raven).
2. Research studies on the immunity of tuberculosis-animal quarters, chemical laboratory, infection chambers.

Office

Full-time personnel:

1. Physician—with training in physiology and tuberculosis.
2. Secretary—25% of Dr. Spicer's present time is spent in secretarial chores: typing, etc.

Part-time personnel:

1. Three Physicians—to participate in Sectional activities and allow us to maintain the Chest Clinic five days a week.

DIVISION OF RADIOISOTOPES

STAFF

JOSEPH B. WORKMAN, B.A., M.D., *Assisant Professor of Medicine and Co-Director of Division of Radioisotopes*

ROBERT E. BAUER, B.A., M.D., *Assistant Professor of Medicine and Co-Director of Division of Radioisotopes* (resigned 15 Dec., 1957)

JOHN M. DENNIS, B.S., M.D., *Professor of Radiology and Consultant to the Division of Radioisotopes*

JOHN STAUFFER, M.D., *Fellow in Medicine assigned to Division of Radioisotopes* (1 July, 1957, to 31 Dec., 1957)

GRANTS-IN-AID

<i>Source</i>	<i>Amount</i>	<i>Title</i>
USPHS	\$2,300.00	"Study of Renal Function Using 1-131 Labeled Diodrast"
E. R. Squibb & Sons . .	5,000.00	"E. R. Squibb Fellow in Radioisotopes"

CURRICULAR ACTIVITIES

During the period covered in this report, the members of this Division have participated in the teaching of the application of radioisotope technics to the study of thyroid physiology and to a better understanding of the role of blood volume

in health and disease, to the freshmen medical students as a part of their course in Physiology. A bloc of 32 hours of laboratory demonstrations and discussions, in addition to two hours of lecture devoted to the broad applications of radioisotopes in medicine, have been set aside by the Department of Physiology for these purposes.

Cooperation with The Department of Biochemistry by giving two one-hour lectures to the Freshmen students concerning the role of radioisotopes in the therapy and detection of cancer was again completed this year.

Cooperation with Department of Physiology and Pharmacology in the demonstration of the ability of various drugs (TSH, Anti-thyroid preparations and thyroid extract to effect the uptake of tracer 1-131 in dogs was again completed during 1957-58.

Cooperation with the Division of Endocrinology of the Department of Medicine in holding regular weekly Ward rounds was performed for fellows, visiting physicians, Senior students and other interested personnel.

Participation, when requested, in the teaching programs of the Department of Medicine and the Tuesday Noon Grand Rounds programs have been participated in by members of the Division during 1957-58.

Organization and presentation of one Saturday morning combined conference devoted to Thyroid Cancer carried out by one member of the Division during 1958.

RESEARCH ACTIVITIES

As previously stressed in previous Annual Reports, the Division of Radioisotopes, *per se*, has been utilized primarily as a service unit for the performance of various radioisotope technics and therapies, by the University Hospital. Research must be limited to that of a clinical type by reason of the physical location of the radioisotope unit, *i.e.*, immediately adjacent to hospital ward, and restricted space in addition to a lack of professional or trained technical personnel.

Some of the research activities in which the Division of Radioisotopes has played a part during the past 12 months are as follows:

In cooperation with the Division of Genito-urinary Surgery, a study of renal function in various clinical states, using 1-131 labeled Diodrast and 1-131 labeled Renografin, was completed.

In cooperation with the Division of Neurology of Department of Medicine, a study of spinal cord circulation was performed utilizing Radioactive Phosphorus and the technic of autoradiography.

In cooperation with the Division of Gastroenterology of the Department of Medicine, a technic was pioneered and perfected for the study of absorption problems related to non-tropical sprue and related syndromes using 1-131 labeled triolein and oleic acids in capsule form.

In cooperation with the Division of Hematology of the Department of Medicine, a technic was established and put into restricted use for the study of Radioactive Iron turnover in certain hematologic disorders. In addition, a supply of Cobalt-58 labeled Vitamin B-12 was obtained from Dr. Paul Numerof, head of the Division of Radioactive Pharmaceuticals of E. R. Squibb & Sons,

for the study of a better and safer Schilling technic in study of macrocytic anemias.

In cooperation with the Department of Surgery, two large studies were either instituted or continued. One, with Dr. Mansberger, is related to the long-term evaluation of thyroid nodules utilizing radio-iodine uptake studies, scintiscanning patterns, correlation with degree of function and pathologic results if and when surgical removal was performed. A second study, with Dr. Buxton, has been the pre-operative and post-operative application of repeated, paid, plasma volume determinations using Radio-iodinated Human Serum Albumin and the technic of isotope dilution.

Cooperation with the Division of Cardiology, Department of Medicine, in the comparing of cardiac output values using the Fick principle and the external scintillation counter-IHSA method of Drs. Huff and our own John Stauffer.

Cooperation and participation with the Division of Endocrinology, Department of Medicine, in the establishment and development of a technic for paper chromatography of thyroid hormone compounds and application of radioisotope technics to the evaluation of such studies.

Cooperation with the Department of Obstetrics and Gynecology in a two-year study, recently completed, of the effects of thyroid hormone, in several forms—a triple blind study—on the maintenance of normal pregnancy, prematurity and in the etiology of post-partum psychosis.

Continued and time-consuming research of an intrinsic nature in the search for newer methods and modes of decreasing radiation dosage from radioactive materials used in medicine and in the necessary instrumentation for the detection of such materials has been carried out by the Division of Radioisotopes.

PUBLICATIONS BY DIVISION OF RADIOISOTOPES STAFF MEMBERS

YEAGER, G. H., WORKMAN, J. B., HOLBROOK, W. and PATTEN, D. H.: Thyroiditis: A Review and Presentation of 40 Pathologically Proven Cases of Chronic Thyroiditis. *South. M. J.* 50:1005, 1957.

EDUCATIONAL ACTIVITIES

<i>Date</i>	<i>Participant</i>	<i>Occasion and Title</i>
Aug. 21, 1957	J. B. WORKMAN	Medical Staff, Ft. Howard VA Hospital, Ft. Howard, Md., "I-131 Therapy of Thyroid Cancer"
Aug. 22, 1957	J. B. WORKMAN	Clinical Application of Radioisotopes, Applied Basic Science Conference, University Hospital
Jan. 21, 1958	J. B. WORKMAN	Participation in Medical Electronics Program, Armed Forces Communication Electronics Assn., University Hospital
Feb. 5, 1958	J. B. WORKMAN	Surgical Staff Conference, Maryland General Hospital, "I-131 Therapy of Thyroid Disease"
Feb. 19, 1958	J. B. WORKMAN	Postgraduate Committee Basic Sciences in Medicine, University of Maryland School of Medicine, "Uses of Radioisotopes in Medicine"

Feb. 26, 1958	J. B. WORKMAN	Surgical Staff Conference, Maryland General Hospital, "Diagnosis of Thyroid Disorders"
Feb. 28, 1958	J. B. WORKMAN	Medical Guest Lecturer, Church Home and Hospital Staff, "Lymphomatous Thyroid Disease"
Mar. 7, 1958	J. B. WORKMAN	Ob.-Gyn. Staff Conference, Sinai Hospital of Baltimore, "Present Status of Medical Use of Radioisotopes"
Mar. 12, 1958	J. B. WORKMAN	Postgraduate Committee, Univ. of Md. Basic Sciences in Medicine, "Physiology of the Thyroid," "Diagnosis and Treatment of Thyroid Disorders"
Mar. 12, 1958	J. B. WORKMAN	Monthly Staff Conference, South Baltimore General Hospital, "The ABC's of Medical Use of Radioisotopes"
Mar. 22, 1958	J. B. WORKMAN	Maryland Society of Medical Technologists, Annual Spring Seminar, Stafford Hotel, Baltimore, Md., "Clinical Use of Radioisotopes"
Mar. 26, 1958	J. B. WORKMAN	Cancer Section, Baltimore City Medical Society, joint meeting with NIH and Washington, D. C., Societies, University Hospital, "Co-existence of Hashimoto's Disease and Thyroid Cancer"
Apr. 17, 1958	J. B. WORKMAN	Medical Staff Lecture, St. Agnes Hospital, "Hyperthyroidism, Diagnosis and Therapy"

NEEDS OF THE DIVISION

In September, 1954, the Division of Radioisotopes moved into the newly renovated and constructed Radioisotope Laboratory quarters on the 3-B Wing of the University Hospital. At the time of the move to what was then spacious quarters, the laboratory staff consisted of one technician, one secretary and one professional man, the Director of the unit. Radioisotope diagnostic procedures were available in a limited number and totalled 631 diagnostic units for the year 1954. (Three radioisotope diagnostic tests were available: I-131 tracer test, 611 tests done; I-131 Scintigram patterns, five tests done during the one-month period test available; I-131 labeled human serum albumin plasma volume determinations, 15 tests done during the two-month period test available.) During the period January to December, 1954, 74 Radioisotope therapy units were performed by the Radioisotope Laboratory. I-131 therapy of hyperthyroidism, and thyroid cancer constituted 45 of the therapy patients while Radioactive Phosphorus therapy of Polycythemia Vera and chronic Leukemia accounted for 18 therapy units. Radio-gold therapy for malignant effusions brought the total therapy patients to 74 by adding 11 patients during 1954.

During the spring of 1955 an additional 162 square feet of floor space became available to the Radioisotope Laboratory for housing the Scintiscanner. No additional space has been added for Radioisotope Laboratory use since that time. In fact,

as of the present, mid-1958, plans are underway to reduce the space available to the Radioisotope Laboratory by about 50%. Such a reduction in critical space is occurring at a time when the work load of routine diagnostic and therapeutic radioisotope procedures have reached an all-time high totaling 1,594 units during the calendar year 1957 as compared to 705 units during 1954. Thirty-one different diagnostic and therapeutic procedures utilizing radioisotopes are now offered as a part of the services of the Radioisotope Laboratory as compared to the seven radioisotope technics available in 1954.

Space

As noted in the Report to the Dean, 1956-57, an additional 200 square feet of working space continues to be a critical item if continued efficient operation of the University Hospital Radioisotope Laboratory is to continue in operation at the present work load rate. The projected curtailment of operating space available to the unit must by necessity result in a similar curtailment in diagnostic and therapeutic units for the future.

Personnel

Two Laboratory Equipment Operators and one Medical Stenographer are the sum total of technical personnel available to the Radioisotope Laboratory by the authorities for the handling of the work load of the unit. All three of these positions are supported via University Hospital funds, a condition which has been in effect since 1 December, 1955. The work load of the Laboratory has expanded to such a point that provision for a third technician and a second medical stenographer must be made as soon as feasible.

Research Funds

With minor exceptions, all of the permanent radioisotope equipment presently in use in the Radioisotope Laboratory has been purchased from research grant funds. Additional equipment, as needed, can—in the main—be obtained from similar sources. However, in order for significant research funds to be obtained, adequate space, properly trained and paid technical as well as professional personnel must first be available to perform the research upon which such grants are based. At present, the Division of Radioisotopes is woefully short in all three categories: space, technical and professional personnel.

DEPARTMENT OF MICROBIOLOGY

STAFF

Full-time:

CHARLES L. WISSEMAN, JR., B.A., M.S., M.D., *Professor of Microbiology and Head of the Department*

ANDREW G. SMITH, B.S., M.S., Ph.D., *Associate Professor of Microbiology*

BENJAMIN H. SWEET, B.S., M.S., Ph.D., *Assistant Professor of Microbiology*

WILLIAM F. MYERS, Ph.D., *Instructor in Microbiology*

ELIZABETH C. HEINZ, B.A., *Assistant Instructor in Microbiology*

Part-time and Adjunct Faculty:

MERRILL J. SNYDER, B.S., M.S., Ph.D., *Assistant Professor of Microbiology**

HYMAN E. LEVIN, M.D., *Associate in Microbiology*

SHELDON E. GREISMAN, M.D., *Associate in Microbiology**

RUTH G. WITTLER, Ph.D., *Adjunct Instructor*

CHARLES FLETCHER (Student), *Summer Research Assistant*

Dr. A. G. Smith was promoted from Assistant Professor to Associate Professor at the beginning of the 1957-58 fiscal year. Dr. Greisman of the Department of Medicine accepted a secondary appointment in the Department of Microbiology in recognition of his contribution to the teaching program and collaboration in a departmental research project. Dr. Myers joined the full-time staff on May 1, 1958, coming from the Department of Bacteriology of the University of Kansas where he was engaged in research on rickettsial metabolism. Dr. Wittler, of the Department of Bacteriology, Walter Reed Army Institute of Research, has recently been appointed as Instructor on our Adjunct Faculty.

The number of classified personnel has not increased from the 11 reported last year. Of these, four are supported by research grants. The need for an additional permanent position on the preparation room staff, mentioned last year, is growing more acute as activities expand.

GENERAL STATEMENT

The mission and plan of operation of the Department of Microbiology have not deviated from those originally set forth in the 1956-1957 Annual Report.

We still hold strongly to the concept that a department of this kind, in order to assume its appropriate role in, and discharge its responsibilities to, the community must be actively engaged in (1) teaching of medical students, (2) recruitment and

* These persons hold primary appointments in the Department of Medicine.

education of the educators and scientists of tomorrow, (3) contribute to the fund of knowledge (research), and (4) affairs of the state, nation, and world. Active progress is being made in revision and expansion of the teaching program, acquisition of staff, improvement of physical facilities, and recruitment of grants and funds to support an actively growing research program. Details of these activities appear in the following paragraphs.

TEACHING AND TRAINING PROGRAM

a. Medical Student Teaching

The major teaching effort remains in the course in Medical Microbiology and Immunology for the sophomore medical students. The content of this course and the technique of its presentation is under constant study and revision. The laboratory manual is now undergoing another revision. New teaching aids are being developed. Through the cooperation of the Department of Medicine, it has been possible to introduce patients into this course on occasion to demonstrate features pertinent to the subjects under discussion. Moreover, case study type of laboratory exercises are being introduced to aid the student to integrate the various aspects of microbiology and to relate them to problems in medicine.

In addition to the sophomore course in Microbiology and Immunology, members of this department hold regular sessions throughout the year with junior students in Clinical Pathology, where the laboratory aspects of the diagnosis of febrile illnesses are discussed, and in Obstetrics and Gynecology where pertinent microbiological problems are reviewed.

b. Graduate and Postgraduate Program in Medical Microbiology and Immunology

The advanced education of selected persons to prepare them to assume responsible roles in academic medicine, medical research, and government departments in the future constitutes a very important responsibility of a university medical school. Considerable effort has been put into the task of preparing this department to assume its proper role in this regard. Three factors have advanced this program significantly :

1. The adoption of the combined M.D.-Ph.D. program at the School of Medicine.
2. A five-year training grant from the U. S. Public Health Service in Rickettsial Diseases.
3. Continued improvement in physical facilities in the department.

In accordance with the anticipated increased activity in this area, the scope of graduate courses offered by the department has been increased. This year, three doctoral candidates are joining the department, two of them candidates for the combined M.D.-Ph.D. degrees. The department awaits with considerable interest and anticipation the fruits of this new effort.

c. Student Summer Fellows

This department continues to support actively the idea that it is an important part of a medical student's education to have the opportunity to participate in some

aspect of medical research. Hence, we continue to open our doors to summer fellows. Students on fellowship during the summer months have been as follows:

1957	1958
Jon Glasier	Herbert James
Arthur Poffenberger	Louis Damiano
	Ferdinand Mainolfi

RESEARCH PROGRAM

Contributions to the fund of knowledge in our field are made through research. The research program of this department continues to develop as physical facilities improve and financial support from the Public Health Service, Office of the Surgeon General, Department of the Army, and private sources grows and as adequate competent staff, research fellows, technical and supporting personnel are gathered together. Active research programs are in operation in the following general areas:

Arthropod-borne Viral Diseases

Studies on the characterization of dengue viruses; development of new immunizing agents for dengue viruses; tissue-culture studies with dengue viruses
Cross-immunity among group B arthropod-borne viruses
The nature of accessory substances in serum which participate in the neutralization of arbor viruses by antibodies

Rickettsial Diseases

Rapid diagnostic procedures; role of phagocytosis in host defense reactions and the nature of the intracellular parasitism; physiological actions of rickettsial toxins; antigenic structure of typhus rickettsiae; electron microscopic studies of the structure of rickettsiae; rickettsial nucleic acids

Tularemia

Rapid diagnostic procedures; role of phagocytosis in host defense mechanisms; tissue culture studies of host cell-bacterial interaction and the role of intracellular parasitism in pathogenesis of infection and response to immune mechanisms and chemotherapy

Cytologic studies of bacterial capsules

Chemotherapy

Experimental virus infections; experimental fungus infection

*Studies on identification of *Candida species**

Equipment for the fluorescent antibody technique has been acquired and is now in operation. A grant request for an electron microscope was cosponsored with the Department of Anatomy. This instrument, the first on the Baltimore Campus, has been purchased and is now in operation. It is housed in the Department of Anatomy.

Dr. Grange S. Coffin of the Department of Pediatrics has been carrying out studies on antibacterial factors in human placentas in the departmental laboratories as a welcome guest investigator.

FACILITIES AND EQUIPMENT

In accordance with our long range plans for creating adequate facilities for this department, the last of the new laboratories on Bressler 5 has been completed and is in the process of being fully equipped. This new laboratory is already in fairly heavy use. It is anticipated that by fall practically all available space will be filled by staff and graduate students. In addition to the continuing efforts to acquire up-to-date equipment for the teaching program we have this past year acquired or have on order the following larger items:

1. Part interest in an electron microscope
2. Equipment for fluorescent antibody technique
3. A special autoclave for cold sterilization with ethylene oxide gas in addition to the conventional steam sterilization
4. Photographic and projection equipment to improve the visual aid facilities in the teaching program

COMMUNITY SERVICE

In the line of Community Service, Dr. Wisseman serves as Chairman of the Bacteriology Test Committee of the National Board of Medical Examiners, Deputy Director of the Commission on Rickettsial Diseases, and Associate Member and Responsible Investigator of the Commission on Immunization of the Armed Forces Epidemiological Board, and member of the Medical Committee of the Chemical Corps Advisory Council.

MISCELLANEOUS

a. In the Fall of 1957 the Department of Microbiology sponsored, and served as host to, a conference on Research in Rickettsial Infections attended by groups from The National Institutes of Health, Walter Reed Army Institute of Research, and the University of Maryland.

b. Dr. Andrew G. Smith attended a course given from Aug. 5-24, 1957, by the Long Island Biological Association on Bacterial Genetics.

ATTENDANCE AT SCIENTIFIC MEETINGS

American Society of Tropical Medicine and Hygiene, October 1957, Philadelphia (Dr. Wisseman and Dr. Sweet)

Ninth Pacific Science Congress, November 1957, Bangkok, Thailand (Dr. Wisseman)

American Association of Immunologists, April 1958, Philadelphia (Dr. Wisseman)

Symposium on Immunity and Virus Infections sponsored by the National Foundation for Infantile Paralysis, May 1958, Vanderbilt University, Nashville, Tenn. (Dr. Sweet)

PAPERS READ BEFORE MEETINGS

BENJAMIN H. SWEET and CHARLES L. WISSEMAN, JR.: Cross-Immunity among group B arthropod-borne (Arbor) viruses: Broadened neutralizing antibody

spectrum induced by 17-D yellow fever vaccine in human subjects previously infected with Japanese encephalitis. American Society of Tropical Medicine & Hygiene, Philadelphia, Nov., 1957.

CHARLES L. WISSEMAN, JR., and JOHN R. GAULD: Phagocytosis and opsonization of typhus rickettsiae. American Society of Tropical Medicine & Hygiene, Oct., 1957.

ANDREW G. SMITH: The use of gelatin in the demonstration of bacterial capsules. Maryland Branch of American Bacteriologists, March, 1958.

BENJAMIN H. SWEET and CHARLES L. WISSEMAN, JR.: Practical application of immunological relationships among the Group B Arboviruses (arthropod borne). University of Maryland Biological Society, April, 1958.

SHELDON E. GREISMAN and CHARLES L. WISSEMAN, JR.: The action of rickettsial toxin and bacterial endotoxin on the peripheral vascular system. Regional Meeting of the American College of Physicians, Nov., 1957.

CHARLES L. WISSEMAN, JR., BENJAMIN H. SWEET and MASAMI KITAOKA: Entitled Broadened Neutralizing Antibody Spectrum Induced by 17-D Yellow Fever Vaccine in Human Subjects Previously Infected with Japanese B Encephalitis Virus. The Ninth Pacific Science Congress in Bangkok, Thailand, Nov., 1957.

PUBLICATIONS BY MICROBIOLOGY STAFF MEMBERS

ESMOND, W. G. and SMITH, A. G.: Structure of Adult Peripheral Myelinated Nerve Fiber as Revealed by Phase Microscopy, *Expt'l. Cell Research* 14:430, 1958.

GREISMAN, S. E.: Capillary Observations In Patients With Hemorrhagic Fever And Other Infectious Illnesses, *J. Clin. Invest.* 36:1688, Dec. 1957.

Others are in press and will be listed next year.

RECOMMENDATIONS FOR IMPROVEMENT

a) *Facilities and equipment.* Considerable effort must continue to go into improvement of facilities and equipment. Badly needed are: (1) additional animal space, (2) refrigerated centrifuge, (3) remodelling of three small laboratories for use by graduate students, (4) additional space for preparation and glassware washing room, (5) several expensive items of equipment needed by Dr. Myers to put the metabolic laboratory back in full operation.

b) *Personnel.* All faculty positions are now filled. This should provide fairly adequate coverage for the immediate future. However, an additional classified position for help in the preparation room remains one of our biggest problems.

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

STAFF

ARTHUR L. HASKINS, A.B., M.D., *Professor of Obstetrics and Gynecology and Head of the Department*

D. FRANK KALTREIDER, A.B., M.D., *Professor of Obstetrics and Gynecology*

FREDERICK M. ZERZAVY, M.C., M.D., *Instructor in Obstetrics and Gynecology*

EDMUND B. MIDDLETON, M.D., *Instructor in Obstetrics and Gynecology*

Dr. Zerzavy resigned January 1, 1958, leaving three full-time staff physicians.

DR. WILLIAM D. GENTRY served as Clinic Chief in a part-time capacity during this fiscal year. DR. WILLIAM K. DIEHL has been Chief of the Gynecologic Cancer Clinic during this period as a part-time Assistant Professor. Other part-time physicians were DRs. ERNEST I. CORNBROOKS, JR., EVERETT S. DIGGS and CLARENCE W. MARTIN.

Many volunteer members of the Department of Obstetrics and Gynecology have faithfully conducted themselves in the teaching of medical students by way of rounds, seminars, lectures and demonstrations. The attendance at all areas of instruction, other than the Outpatient Department, was exemplary. The Outpatient Department was, as usual, poorly attended by the volunteer physician. It should be mentioned, however, that among even these assignments there were those who were extremely faithful in their attendance.

SPECIFIC INSTRUCTIONAL AREAS

Basic Science

Basic science reorientation in Anatomy, Bacteriology, Physiology, Pharmacology, Biochemistry, and Hematology have been contributed to generously by members of the several departments concerned. Dr. Frank H. J. Figge, Dr. Charles L. Wissemann, Jr., Dr. John I. White, Dr. Emil G. Schmidt, Dr. Edward B. Truitt, Dr. Milton S. Sacks, and Dr. William R. Amberson have represented their own basic science interests.

Obstetrical and Gynecological Pathology

Six sessions of three hours each were given to each third-year medical student group and the sessions were supplied with instruction by Dr. Haskins, Dr. Theodore Kardash, Dr. L. Louis Mould and the Residents. A new student loan collection is under preparation.

Daily Departmental Conferences

These were rotated through the following volunteer people: Drs. J. Huff Morrison, George A. Maxwell, King Seegar, Jose G. Valderas, John Savage, Raymond

L. Markley, Hugh B. McNally, and James H. Shell. Full-time personnel also participated in the conferences. This exercise was well attended by a devoted group of volunteer instructors. The manikin class was held by Dr. Isadore A. Siegel in the Outpatient Department. He was assisted by Drs. Erwin Hecker, Vincent D. Fitzpatrick, Harry M. Beck, Ernest Scher, William P. Englehart, and George E. Wells, Jr.

Outpatient Department

Drs. Joseph S. Ardinger, Frank W. Baker, Edward M. Barczak, Harry Cohen, W. Allen Deckert, Lawrence D'Elia, James L. Eavey, Daniel Ehrlich, Louis Gareis, Charles R. Green, Vernon Kelly, Irvin P. Klenkowski, Norman Levin, W. Kenneth Mansfield, George A. Maxwell, T. Edgie Russell, Benson C. Schwartz, Paul Tinker, and Thomas Webster were assigned to the Outpatient Department.

Gynecologic Surgery

Drs. Valderas, Diggs, Cornbrooks, John C. Dumler, Markley, and Shell. The function of these men has been to serve as technical instructor with the residents in one major operation a week.

In addition to planned teaching exercises, each physician has been urged to utilize his own private patients in instruction of house officers and medical students with particular regard to operative technique and technique of delivery.

Baltimore City Hospitals

Dr. Paul E. Molumphy, Dr. Charles R. Green, and Dr. Robert K. Arthur made up the full-time staff at the Baltimore City Hospitals as of July 1, 1957. Due to the resignation of Dr. Arthur, Dr. Molumphy and Dr. Green are the remaining full-time personnel. They have been assisted in the teaching of Maryland students by a number of volunteer physicians from this hospital, including Drs. George H. Davis, D. McClelland Dixon, Vincent D. Fitzpatrick, Isadore A. Siegel, and Hugh B. McNally.

Gynecologic Seminars

Gynecologic Seminars are conducted for the fourth year students at University Hospital by Drs. Cornbrooks, Frank K. Morris, Diggs, and Dumler. The remainder of the time, the fourth-year students were in the Cancer Clinic, the Endocrine Clinic, the regular Clinic and attended a Pelvimetry course of instruction by Dr. Norman Levin.

A new course of instruction, entitled "Cancer Therapeutics," has been given in the latter part of the school year from 9:00 to 10:00 each morning on Wednesday. This is attended by the interested members of the Department of Obstetrics and Gynecology, as well as the Radiotherapist group. These are, in effect, a Gynecologic Cancer Board in which all patients currently under treatment for gynecologic cancer are discussed. The effectiveness of the presentation is enhanced by the participation of Dr. Fernando G. Bloedorn and Dr. Carlo Cuccia from the Department of Radiotherapy.

RESEARCH

Student research continues to be stimulated. The utilization of funds from the Josiah Macy, Jr., Foundation for Summer Fellowships in the realm of reproduction

have been particularly effective. During the summer of 1957, Mr. James Durkan, Mr. Sheldon Goldgeier and Mr. Stanley S. Schocket were the recipients of the Fellowship in the Department of Obstetrics and Gynecology.

Dr. Keijo Soiva, Assistant Chief of Obstetrics and Gynecology, University of Turku, Finland, has been a Guggenheim Fellow in the Obstetrical and Gynecological Laboratories, to study radio-tracer methods, from January to June, 1958.

Several research projects now underway or completed during the last year consist of:

- Evaluation of thyroid function during pregnancy.

- The response of the rabbit endometrium to the intrauterine application of 17-alpha hydroxyprogesterone caproate.

- The effect of intravenous progesterone on the rabbit endometrium.

- The induction of ovulation in humans and in rabbits, utilizing intravenous progesterone.

- The excretion pattern of chorionic gonadatropin in the blood, urine and stool.

- Follicle stimulating hormone excretion in patients with breast cancer.

- The placental transmission of radioprosterone.

- The distribution of radioactive progesterone in the various fractions of human plasma.

- Evaluation of synthetic oxytocin in the parturient woman.

- Experimental hypofibrinogenemia in the rabbit.

- Hypofibrinogenemia in missed abortion.

- The treatment of hypofibrinogenemia, utilizing heparin.

- Anatomical studies of uterine fibromyomata.

- The use of the bioflavinoids in prevention of the accident of isoimmunization.

GRADUATE PROGRAM

The graduate program as it refers to the house officer in Obstetrics and Gynecology has consisted of the training of fourteen house officers this year. Of this group of men, five become eligible for the American Board of Obstetrics and Gynecology. It is anticipated that Dr. Strong will be entering the Baltimore City Hospitals as a full-time Instructor. Dr. Gagnetten is returning to his native country of Argentina. Dr. Thames is entering private practice in Florida. Dr. Nissen is returning to private practice in California. Dr. Sherman is going to private practice in Ohio.

Planned exercises for the house officers consist of weekly staff conferences, weekly house staff conferences, monthly obstetrical and gynecological pathological conferences, weekly cancer conferences, monthly conferences in the prevention of pelvic cancer, and monthly fetal mortality conferences in conjunction with the Department of Pediatrics.

House officers have participated in laboratory and clinical research to a greater extent this year than the previous one. Dr. Henry D. Perry has participated in the evaluation program of synthetic oxytocin; Dr. Eugene Sherman in the investigation of hypofibrinogenemia; Dr. Narinder Sehgal in the anatomical consideration of uterine fibromyomata and Dr. Irving Kuperman and Dr. Perry in the hypofibrinogenemia problem.

Graduate programs of the department, of course, also extend beyond the confines of University Hospital to hospitals within the State, as well as institutions and meetings outside of the State of Maryland. Monthly conferences have been held at Peninsula General Hospital. These have been given by Drs. Gentry, Valderas, Middleton, Eavey, Haskins, Diggs, Russell, Markley, Kaltreider, Hecker and McNall. Monthly staff conferences at Easton Hospital have been given by Drs. Kardash, Tinker, Haskins, Schwartz, Green, Cornbrooks, Kaltreider, Molumphy, Gentry and Zervy. Four resident physicians have been maintained at Peninsula General Hospital at three-month intervals. A man from Easton and Peninsula General Hospital attends the weekly staff conferences at the University Hospital.

EXTRAMURAL EDUCATIONAL PROGRAM

Presentations by Dr. Kaltreider:

- "The Early Recognition of Dystocia," Washington State Medical Society, Sept. 18, 1957.
- "Fetopelvic Grading in Breech Presentation," Seattle Gynecologic Society, Sept. 19, 1957; Sinai Hospital, November 13, 1957.
- "Pitocin: Credit and Debit," Eastern Panhandle Medical Society of W. Va., Sept. 22, 1957.
- "Health and Happiness," The Hecht Company, Edmondson, Nov. 6, 1957.
- "Heart Disease in Pregnancy," Bon Secours Hospital, Nov. 7, 1957; St. Agnes Hospital, Nov. 21, 1957.
- "Breech Presentation," Sinai Hospital, Nov. 13, 1957.
- "Eclampsia," Doctor's Hospital, Nov. 13, 1957.
- "The Use of Pitocin in Obstetrics," Bon Secours Hospital, Feb. 6, 1958; St. Agnes Hospital, Feb. 27, 1958.
- "Breech and Caesarean Section," Maryland General Hospital, Mar. 10, 1958; Northern Virginia Ob./Gyn. Society, Mar. 27, 1958; Provident Hospital, Mar. 28, 1958.
- "The Elderly Multigravida," Provident Hospital, The Berkley-Butler Lecture, May 16, 1958.

Presentations by Dr. Haskins:

- "Treatment of Chronic Anovulation," Women's Hospital, Oct. 26, 1957; Mercy Hospital, Oct. 23, 1957.
- "Management of Prolonged Labor," U. S. Army Hospital, Aberdeen, Oct. 30, 1957.
- "Female Isosexual Precocity," Bon Secours, Dec. 5, 1957; U. S. Army Hospital, Aberdeen, Dec. 18, 1957; St. Agnes, Dec. 19, 1957.
- "Recently Developed Steroids with Luteoid Activity," Bon Secours Hospital, Mar. 6, 1958.
- "Adjunctive Estrogen Therapy," Southeastern Surgical Congress, Mar. 12, 1958.
- "Recent Advances in Progesterone Therapy," U. S. Army Hospital, Aberdeen, Apr. 16, 1958.
- "Endocrine Problems in Gynecology," American College of Obstetricians and Gynecologists, Los Angeles, Apr. 21, 1958.

"The Response of the Rabbit Endometrium to the Intrauterine Application of 17-alpha Hydroxyprogesterone Caproate," Society of Gynecologic Investigation, Apr. 19, 1958.

Presentations by Dr. Middleton:

"Accidental Hemorrhage in Pregnancy," Bon Secours Hospital, Jan. 9, 1958; St. Agnes Hospital, Jan. 23, 1958; Peninsula General Hospital, Mar. 18, 1958.

"Extrauterine Gestation," St. Agnes Hospital, Apr. 17, 1958; Bon Secours Hospital, Apr. 3, 1958.

Presentations by Dr. Nissen:

"Twins: Collision, Impaction, Compaction, Interlocking," Maryland General Hospital, Oct. 14, 1957.

"Malignant Carcinoid Syndrome," Obstetrical & Gynecological Society of Maryland, Mar. 13, 1958; Maryland General Hospital, Mar. 31, 1958.

Travel Accomplished Outside of the State of Maryland:

Aug. 26-31, 1957, Mr. Thomas A. Stebbins attended the meeting of the Biological Photographic Association in Rochester, Minn.

Sept. 4-7, 1957, Dr. Arthur L. Haskins and Dr. D. Frank Kaltreider attended the meetings of the American Association of Obstetricians and Gynecologists in Hot Springs, Va.

Sept. 19, 1958, Dr. Kaltreider attended the meeting of the Seattle Gynecologic Society in Seattle, Wash.

Sept. 22, 1958, Dr. Kaltreider attended the meeting of the Eastern Panhandle Society of West Virginia in Martinsburg, W. Va.

Oct. 6-9, 1957, Dr. Haskins attended the Conference on New Steroid Compound with Progestational Activity at the New York Academy of Sciences, New York City, N. Y.

Nov. 9-15, 1957, Dr. Henry D. Perry* and Dr. Eugene Sherman* attended the meeting of the Southern Medical Association in Miami, Fla.

Nov. 11-15, 1957, Dr. Edmund B. Middleton attended the meeting of the Southern Medical Association in Miami, Fla.

Dec. 3-4, 1957, Dr. Kaltreider attended the meeting of the Obstetrical Cooperative in New York City and again on Jan. 24, 1958, Dr. Kaltreider attended the Executive Committee meeting of the Obstetrical Cooperative in New York City.

Apr. 18-23, 1958, meetings of the American College of Obstetrics and Gynecology, The Society for Gynecologic Investigation, and The Infertility Society were held in Los Angeles, Calif., and attended by Dr. Haskins. Similar Society meetings were attended by Dr. Keijo Sovia.

June 18-24, 1958, meetings of The Endocrine Society, AMA, in San Francisco, Calif., attended by Dr. Haskins.

June 21-27, 1958, meeting of the AMA in Los Angeles, Calif., attended by Dr. Kaltreider and Dr. Irving Kuperman.*

June 21-28, 1958, meeting of the World Congress of Obstetricians and Gynecologists in Montreal, Canada, attended by Dr. Samuel Deisher* and Dr. Alfredo H. Gagneten.*

* Resident physicians.

EXTRAMURAL ORGANIZATIONAL ACTIVITIES

President, Maryland State Obstetrical and Gynecological Society, Dr. Arthur L. Haskins.

Medical Advisory Board, Planned Parenthood Association of Baltimore, Dr. Arthur L. Haskins.

AMA, Secretary Obstetrical and Gynecological Executive Committee, Dr. D. Frank Kaltreider.

District Director, American Association for Maternal and Infant Health, Dr. D. Frank Kaltreider.

President, Dougtricians Obstetrical Society, Dr. D. Frank Kaltreider.

STATISTICAL ANALYSIS OF PATIENT SERVICE RENDERED

Your attention is directed to the Summary of Admissions, Perinatal Mortality and Gynecologic Data in the Department of Obstetrics and Gynecology, University of Maryland.* This is the first complete summary since this department has been combined. This summary is the result of the efforts of Dr. D. Frank Kaltreider.

It is anticipated that henceforth the statistical report will be prepared on a calendar year basis rather than a fiscal year.

FACILITIES AND EQUIPMENT

Research facilities and equipment have not changed markedly in the past year. There has been some addition in the basic instrumentation. The total amount of space allowed to the department is identical with that of the previous report.

The new Delivery Floor which has been planned for the past several years is nearing completion and projected occupancy is approximately the first of June 1958. The basic facilities in this are excellent. Some of the new equipment which is needed has not been realized at the present time. It is hoped that this will be obtained in the next year.

COMMUNITY SERVICE

Community service has been projected to include many of the institutions of the State of Maryland. Outstanding in this have been the institution at Jessups, Md., and the mental institution at Crownsville. A number of patients have been treated in each of these institutions. The mental institution has been covered by house officers and full-time men in an attempt to do appropriate cancer survey. Participation in television programs and information programs in general has continued.

PUBLICATIONS BY OBSTETRICS & GYNECOLOGY STAFF MEMBERS

HASKINS, A. L.: Adjunctive Estrogen Therapy, *Obst. & Gynec.* 11: No. 1, Jan. 1958.

HASKINS, A. L.: The Proper Treatment for Endometriosis, *Modern Med.*, June 1958.

HASKINS, A. L.: Endometriosis, *Ann. Int. Med.*, April 1958.

HASKINS, A. L.: Caveat Emptor, *Bull. School Univ. Maryland*, June 1958.

SHERMAN, E.* and MIDDLETON, E. B.: The Management of Missed Abortion with Hypofibrinogenemia, *Maryland M. J.* 7: No. 6, June 1958.

KALTREIDER, D. F.: Fetopelvic Grading or Breech Presentation, *J.A.M.A.*, Sept. 1957.

* *Bull. School Med., Univ. Maryland*, Vol. 43, No. 2, April 1958.

SCHWARTZ, B. C. and DIXON, D. McC.: Shoulder Dystocia, *Obst. & Gynec.* 11: No. 4, April 1958.

NISSEN, E. D.*: Twins: Collison, Impaction, Compaction, and Interlocking, *Obst. & Gynec.* 11: No. 4, May 1958.

* Resident Physician.

RECOMMENDATIONS

Many changes are needed in the Outpatient Department. This includes facilities for the care of private patients, as well as the indigent and medically indigent patient. No specific recommendations are being made at the present time because of the temporary nature of the current situation.

There is, however, a need for change as far as physicians are concerned. Of all the teaching enterprises in the Department of Obstetrics and Gynecology, the assignments to the Outpatient Department are the least attended. An attendance of 50% is considered to be exemplary. It is apparent that with an outpatient load of the current magnitude, a full-time physician should be in charge and in attendance in the clinic. For this reason, an additional physician is being requested on a full-time basis. The position of Assistant Professor is being recommended.

There is an increase in patient load. There has been considerable hospital delay in the admission and treatment of cancer patients, due to the lack of beds that could be utilized for this.

A reapportionment of beds between the obstetrical and gynecological ward service has been recommended. With the opening of the new Delivery Floor, it is hoped that this reapportionment will occur within the next year.

Research facilities and physical plant are satisfactory. There is, however, difficulty in providing continuity of the research program due to the fact that a competent research director is not always in attendance in the laboratory. For this reason, a new position of Research Assistant is recommended. It is hoped that a Ph.D. or M.D. whose primary interest is research can be utilized to fulfilling the position.

DEPARTMENT OF OPHTHALMOLOGY

There were no essential changes in the Department of Ophthalmology during the past year. A course of didactic lectures was given to the Junior class for 15 weeks, one lecture per week. The Junior class attended the clinic at the Baltimore Eye, Ear and Throat Hospital throughout the year in small groups. During the Senior year ward rounds were held with small groups whenever clinical material was available. Since the closing of the eye dispensary, the material available for examination was necessarily very limited.

The same program will take place during the following school year. It is hoped that the eye dispensary will be reopened in a reasonably short time.

DEPARTMENT OF PATHOLOGY

GENERAL STATEMENT OF OPERATING PLAN AND IDEOLOGY

After the arrival of Dr. Harlan I. Firminger as new Head of the Department of Pathology in July, 1957, one might get the impression that the watchword of the Department was "change." Certainly very few areas did not feel the convulsions of reorganization. The one most stable element has been the hard work of almost all of the personnel of the Department, professional and non-professional alike.

The basic mission of the Department remains the same; namely, teaching, service and research. Only the methods and facilities for accomplishing this mission are changed.

STAFF

In 1956, the Curriculum Committee reorganized the curriculum placing the bulk of pathology teaching in the Sophomore year and all but eliminated the correlative teaching of the Junior and Senior years. For this reason it no longer seemed indicated to maintain the part-time clinical staff in the Department and, with the exception of Dr. Ellis in Dermatology, there was no opportunity for these men to participate in the activities of the Department this past year and they are being honorably discharged from the Pathology Staff.

On the credit side of the ledger, we have been fortunate in acquiring Dr. Robert B. Schultz as Assistant Professor of Pathology. He took up his duties in January of 1958 and has already contributed much to the Department. We are continuing to search for other talented and promising staff members. Some assistance in this regard is coming from within. Drs. Lester Kiefer and Thomas Burkart have each qualified for their American Board Examination and they have been promoted to the rank of Assistant Professor of Pathology beginning July 1, 1958. Drs. Gillotte and Baer are also taking on increasing responsibility commensurate with their stage of training.

Dr. John Wagner, Professor of Neuropathology, has continued to lead that segment of Pathology as well as to edit the *BULLETIN OF THE SCHOOL OF MEDICINE*.

Dr. John Frost, Associate Professor of Pathology, continues to operate the Division of Cytopathology and divides his time between the University of Maryland and Johns Hopkins.

Dr. Robert Wright, Associate Professor of Pathology, has devoted the half-time which he spends with the Department in teaching both sophomores and residents.

The voluntary Division of Forensic Pathology is headed by Dr. Russell Fisher, Professor of Forensic Pathology, and includes Drs. Paul Guerin, and Richard Lindenberg, Assistant Professors of Forensic Pathology, and Drs. Henry Freimuth

and William Lovitt, Associate Professors of Forensic Pathology. All of these men assisted in the excellent teaching of Forensic Pathology and, in addition, Dr. Lindenberg ably assisted in the teaching of Neuropathology.

The voluntary visiting staff was further expanded and assisted in the teaching of students. It now includes:

DR. DAVID HOLLANDER, *Instructor*

DR. WALTER MERKEL, *Associate Professor*

DR. DEXTER REIMANN, *Associate Professor*

DR. ROBERT SOLOMON, *Assistant Professor*

DR. C. G. WARNER, *Associate Professor*

DR. TOBIAS WEINBERG, *Associate Professor*

Valuable assistance to the technical activities of the Department has come from Mr. Hans Bergmann, Research Assistant, who accompanied Dr. Firminger in his move from the University of Kansas. Mr. Louis Jager continued his efficient leadership of the routine laboratory.

During the year we regained the services of Miss Loretta Hogan, faithful secretary of Dr. Spencer, who had been ill for several months. The remaining secretarial staff has been bolstered by additional help and at present only through diligent effort are they able to keep up with the work of the Department. Despite streamlining activities the increasing work load of the Department and constant demands for more and more paper work have raised the secretarial needs of the Department beyond the available budgetary allotment.

TEACHING PROGRAM

The Sophomore course in Pathology was completely reorganized and is now based on the case method of teaching and employs small group discussions wherever possible. After the initial weeks of introduction to the basic principles of pathology and to the gross and microscopic characteristics of various type lesions, emphasis is given to development of the concepts of disease as it has actually occurred in human cases. By this method, it is possible to integrate and correlate information from anatomy, histology, biochemistry, physiology, microbiology, and physical diagnosis with the anatomical and clinical pathologic findings. This provides the student with a more nearly complete conceptual picture of disease and it provides a means of approach to the problems of clinical patients later on in his medical career.

This newly introduced approach was possible only because of the abundant material which was available in the files and the willing cooperation of our voluntary staff who gave generously of their time and efforts to assist in conducting the small group discussions. Fresh autopsy material was used regularly and the students were called in groups of three or four to assist in autopsies as often as it was possible. The latter was somewhat inadequate due to the fact that students were only called when there was no conflict with classes other than Pathology.

Dr. Lester Kiefer conducted a course in experimental pathology as a part of the Sophomore Pathology course. In this course, each student in groups of three or four performed nine animal experiments through the year. By this means the students become acquainted with the dynamic, constantly changing and at times variable course of "disease" processes. A number of the basic concepts of pathology

such as inflammation, wound healing, etc., were brought to life in this manner and the students obtained first hand knowledge of the processes. Also in a number of the experiments the students analyzed their results by making their own frozen sections of the lesions and thereby getting some idea of its uses and accuracy. Even statistics were not neglected in evaluating some of the results.

For the Junior students during their course in Medicine we participated in a series of weekly 1 to 1½-hour sessions on Correlative Medicine or Neuropathology. In these sessions clinicopathological correlation was the aim for a selected group of major diseases. In addition, for one hour per week at Baltimore City Hospitals there was a cooperative teaching program for Junior students in Neurology.

For the Seniors a course in Surgical Pathology was instituted during their time on Surgery. This course was under the supervision of Dr. Thomas Burkart, and it was conducted as more or less informal sessions with gross specimens and koda-chrome slides for 1½ hours, twice a week. Dr. Burkart was ably assisted by a number of voluntary staff which included particularly Drs. Merkel and Reimann. In addition, the Seniors on Neurology and on Neurosurgery participated in the Staff Conference on Neuropathology once a week.

The Clinical Pathological Conference each Saturday morning was altered to include as much participation by Junior and Senior students as possible. In addition, variety was added to the program by varying the moderator from week to week. The Department of Pathology is indebted to the various moderators who did an excellent job and particularly to Dr. Entwisle of the Department of Medicine who assisted in the selection of cases and took the responsibility for preparing the clinical histories.

The program for a new elective course in Neuropathology has been drawn up and submitted to the Curriculum Committee. It is hoped that approval can be obtained in time for next year. This year, 11 Seniors selected Pathology for their elective month. This was in no small measure due to the enthusiasm of the four Fellows in Pathology during the summer of 1957. At present there are six Student Fellows in Pathology, three at the Medical Examiner's Office and three in the Department of Pathology for the summer.

RESEARCH PROGRAM

Outside of the Neuropathology Division there is little progress to report in terms of finished research at the present time; however, during the past year considerable foundation was laid toward future research production. The Department has been equipped with the basic tools for conducting research in the fields of histochemistry and correlative biochemistry. We are still somewhat short of personnel, and physical and technical facilities for the service functions of the Department and this will hamper an early productive program. It also prevents the type of cooperative research with other departments which should be allowed to develop.

A small biochemical laboratory has been erected along with a walk-in cold room. This laboratory is equipped with some of the basic tools but many smaller items will be needed before the laboratory can be used.

A laboratory for tissue culture has been built and equipped and Dr. Robert

Schultz soon will resume his research on the relationship of viruses to tumor formation.

Dr. Burkart is continuing his cooperative study of renal biopsies in cases of hypertension with Dr. Sam Revell. He also is cooperating with Dr. Mansberger in the Department of Surgery on a study of methods of therapy in carcinoma of the colon and breast.

Dr. Gillotte is carrying on a joint project with Dr. T. Kelley in Gastroenterology concerning the value and clinicopathological correlation of gastric biopsies, particularly in gastritis.

Dr. Schultz is working with Drs. Wolfel and Bloedorn in Radiotherapy on the results of cobalt bomb therapy in cases of carcinoma of the lung and esophagus.

Dr. John Frost with the assistance of an outstanding student, Mr. Wilson Heefner, who just completed his sophomore year, is working on the analysis of the cytopathologic changes in cervical and vaginal smears in cases of trichomonas infection.

Dr. H. Firminger with the assistance of Dr. Melvin Reuber is continuing a study of the role of the endocrines in hepatic carcinogenesis which is being carried over from the University of Kansas where Dr. Reuber has just graduated.

In the Division of Neuropathology, Dr. Wagner together with Dr. Rafael Longo has completed a study of various cerebellar lesions and more recently he analyzed the pathologic findings in cases labelled as "CVA" clinically. He is reporting these (see section on publications). Dr. Longo has also prepared a paper on a case of persistent trigeminal artery which is being submitted for publication.

GRADUATE PROGRAM

One of the most important aspects of any living thing is its ability to propagate and reproduce its kind. Hence, it was necessary to set up a resident training program in Pathology. Approval for such a program was obtained from the AMA for four years of training including two years of training in clinical pathology. Much of the mechanics in a pathology department ordinarily are carried on by such residents and the lack of sufficient men in training in this Department during the last two years has been a serious handicap. Because residents are ordinarily appointed from July 1 through June 30 and the new resident program was not set up until most potential candidates were already committed, it was fortunate that during the year we were able to take on two residents, Dr. John Adams and Dr. Peter Ganef. In addition, both Surgery and Gynecology and Obstetrics sent men for limited training in Pathology for four and three months, respectively, during the year.

All of these men in training have had an opportunity to see and discuss much of the interesting material which has come to the Department and conferences on the gross and microscopic material were held twice a week.

Dr. Wagner has also had a neurosurgery resident, Dr. R. Longo, studying Neuropathology for this year. In addition to studying the teaching material, he has had the opportunity to study all the current gross and microscopic neuropathological material as it came in; this included approximately 250 surgicals and 300 brains removed at autopsy. He has also participated in research (see publications).

In addition, the Neuropathology Division has been awarded one of the few grants from the National Institute for Neurological Diseases and Blindness for training neuropathologists.

A program for training residents in Cytopathology, both formal and informal, was conducted by Dr. John Frost during the year. In addition, both Drs. Kiefer and Burkart spent two months each full-time in training throughout the year. Dr. Frost also conducted a series of sessions in Cytopathology for practicing pathologists.

Dr. Russell Fisher carried on a training program for two residents in Forensic Pathology under an N.I.H. training grant. Also Dr. Freimuth, Associate Professor of Forensic Pathology, conducted a program for two students seeking graduate degrees in Toxicology.

There were two graduate students from the Anatomy Department who took the course in Pathology for minor graduate credit along with the sophomore medical students. On the basis of their performance and the new approach of the course it was decided not to accept further graduate students for this course unless they had satisfactorily completed the same prerequisites that are required of medical students.

SERVICE FUNCTIONS OF THE DEPARTMENT

The Department processed approximately 7,630 surgicals and 6,200 cytopathologic cases last year. In addition, there were approximately 418 autopsies during the year. The handling of the surgical pathologic specimens has been somewhat expedited but the main change has been to the examination of fresh specimens. This latter change permits better gross interpretation, better resident training, and photography for accurate permanent records and added teaching material.

The procedure for autopsies has been altered to expedite the release of bodies and increase the accuracy of dissections. In addition, the autopsy protocol format has been changed to the picture or diagram type. This saves on secretarial help, offers the possibility of greater accuracy of records and reduced meaningless descriptions. The delay in completion of protocols because of lack of an abstract of the clinical history has been eliminated by having the pathology residents make a short abstract at the time of autopsy.

The large backlog of incompleated autopsies which accumulated before July, 1957, has been partly completed despite the shortage of personnel but many autopsies from both 1957 and 1958 are still awaiting completion.

Since June, 1955, there has been no cross index by diagnosis and a new filing system for indexing both surgical and autopsy cases by diagnosis has now been devised and will be put to use beginning July 1, 1958. The system is the simplest we could contrive and consists of merely listing cases on visible file cards according to alphabetical diagnosis under each system and organ involved. This will also serve as an index to gross material and to the kodachrome collection for teaching.

Finally, with the exception of Neuropathology, the major deficiency is the lack of regularly scheduled interdepartment conferences due to the lack of personnel. With the coming of new residents and supplementation of the staff, it is hoped to at least partially correct this deficiency.

FACILITIES AND EQUIPMENT

Practically all of the physical facilities of the Department of Pathology have been renovated in the past year with the chief aim toward maximal utilization of space. Because of the constantly increasing work load of the Department, the change in the teaching program to the case method of teaching and the space requirements for conducting of research, it was necessary to plan the space allowed for the Department of Pathology with careful attention to detail. As a result even such busy areas as the tissue laboratory had to be changed in order to increase usable work space. A storeroom was taken over and converted to a surgical pathology cutting area and a new storeroom created in an unused portion of the downstairs hall. The large room used for storing of autopsy specimens had to be re-equipped with new shelving in order to increase capacity even though shelving was already present. It was fortunate in this instance that such was necessary because it was discovered that the shelves were riddled with termites and about ready to collapse even though no prior indication had been noted of this condition.

In tune with this general aim of efficiency and space conservation, we have also tried to streamline some of our methods and we are switching to plastic bag type of storage such as is used at the Armed Forces Institute of Pathology for the storing of tissue blocks.

Aside from this major problem of renovations to allow for maximum utilization of existing space, there have been distinct improvements and changes made in the Department. First of all, from the standpoint of students, resident staff and faculty, the ready availability of current reference material is all important in an educational institution of this kind. Consequently, a departmental library has been established, not only for texts and bound journals but also for current journals. It also serves as a repository for our kodachrome slides which are readily available for teaching. This room also serves as a small conference room.

To assist our teaching program we have designed a museum for an area in the basement formerly used only for lockers which were largely vacant. This is presently in the process of being constructed. We hope it will be available for teaching next year.

From the standpoint of service, perhaps the major renovation is the overhauling of the autopsy room which has now been completely redone and is a most workable air-conditioned area, equally usable in summer or winter. It also serves as an excellent teaching area. It has two deficiencies: 1) there is no way of closing off one portion for teaching while autopsies are going on in the other portion of the room; and 2) there are no toilet and shower facilities as a part of the area. However, it is now possible to handle the present autopsy load with a minimum of delay and with the present facilities it is satisfactory for teaching of both residents and medical students as well as staff by the conference method with review of current material.

The surgical pathology area has not been neglected but still has a number of deficiencies. Facilities were acquired whereby fresh surgical material can be studied. However, the present arrangement for doing surgical frozen sections in the operating room suite is not completely satisfactory in that the room is used by other personnel and it often requires some time to prepare for a frozen section which should

be done immediately. It would be desirable to move the surgical frozen sectioning to a less populated area with a somewhat lower priority for other uses but in an area as available as possible to all of the operating rooms. A technifreeze apparatus has been ordered in order to improve the speed and quality of frozen sections and reduce the difficulty in doing frozen sections.

The cutting room area for gross surgical specimens in the medical technology building has been renovated but it still requires further changes before it will accommodate this function satisfactorily. It is equipped with photographic equipment so that fresh surgical specimens can be photographed at the time of examination and sectioning.

For the first time a start has been made toward equipping the Pathology Department to carry on its necessary research functions. We have a small histochemistry laboratory and biochemistry laboratory equipped with a chemical bench, a hood and some basic biochemical equipment. In addition, a laboratory for tissue culture has been set up and will shortly be air-conditioned along with two experimental animal rooms, highly necessary for animal experimentation in this Department. The student experimental animals have been moved to a new area adjacent to the experimental pathology laboratory. We are awaiting the delivery of equipment for fluorescence microscopy, one of the newer important techniques for pathological interpretation and research. In addition, during the past year an electron microscope and much of the ancillary equipment was obtained jointly by the Departments of Anatomy, Microbiology and Pathology. It is presently housed in the anatomy area but is available for use in Pathology. A number of important advances in Pathology can and are being made with this technique and it is expected to provide a fruitful source of additional information. In the Cytopathology area additional equipment was obtained for improving the teaching material and making it more readily available. In addition, equipment for timelapse cinematography of tissue culture was purchased from a research grant. Dr. Frost plans to work with Dr. Schultz and utilize this equipment for research in an approach to some of the problems in Cytopathology.

Last, but not least, improvements have been made which aid in administration, secretarial areas and technical services. Such things as a central dictating facility for the Staff, an additional electric typewriter and a new electric mimeographing machine have assisted in accomplishing many of the office tasks. A new rotary microtome, microtome knife sharpener, a freezing microtome for special staining procedures, a paraffin oven and an ice cube maker have made the tasks of the technical staff simpler and the operations more efficient.

COMMUNITY SERVICE

In a direct manner, service was rendered to the public in a number of ways. The Department of Pathology took on the responsibility for examining the specimens submitted under a program for diagnosis of cancer in the indigent sponsored by the American Cancer Society. In addition, the Department has operated a service to physicians and patients by accepting outside surgical material from physicians and hospitals for many years. In the past year approximately 1,000 such specimens were diagnosed.

In the realm of teaching, the laboratories have been available for postgraduate study by outside physicians preparing for their board examinations in Surgery or other specialties including Psychiatry. A number of physicians throughout the year have availed themselves of the facilities.

Members of the Department have served as members of many professional organizations. Dr. Wagner has served on the Maryland Division of the American Cancer Society, as a member of the Council of the Maryland Society of Pathologists, and a number of committees such as the Citation's Committee for the Washington College, Chestertown, Maryland. He also served as chairman of the Editorial Board for the *Maryland State Medical Journal* and as Medical Examiner for the Selective Service System. In addition, his service as Editor of the BULLETIN OF THE SCHOOL OF MEDICINE OF THE UNIVERSITY OF MARYLAND is certainly a community service, as well as a direct service to the Medical School. Dr. Firminger has served as a member of the Post-Mortem Medical Examiner's Commission. Both Dr. Wagner and Dr. Firminger gave talks at various hospitals in the Baltimore area including Mercy, Sinai, Fort Howard and others. Dr. Frost has been active in many public meetings concerned with the cytological diagnosis of cancer and given courses in cytodiagnosis for technicians and practicing pathologists. Dr. Firminger was recently elected to Alpha Omega Alpha by the Missouri Chapter for his contribution to medical education and has been appointed as a consultant to Fort Howard Veterans' Hospital.

LECTURES, CONFERENCES, PAPERS PRESENTED AND PUBLICATIONS

Dr. Wagner participated in a demonstration on closed circuit television for the American College of Radiology sponsored by the Armed Forces Institute of Pathology. He also conducted a course in Surgical Neuro-anatomy for the International Academy for Pathology in Cleveland. He gave a paper on cerebellar lesions at the Southern Medical Society meetings and is now presenting an exhibit of various lesions called "CVA" at the AMA meetings in San Francisco. Dr. Firminger conducted a CPC for the American Society for the Study of Neoplastic Diseases. Publications from the Department include the paper by Dr. Wagner and Dr. Longo on lesions of the cerebellum in press in the *Southern Medical Journal*, a paper by Dr. Longo on persistent trigeminal artery which is presently being submitted and there are other short papers being prepared at the moment in the Department by Drs. Thomas Burkart, Lester Kiefer, and John Adams.

RECOMMENDATIONS FOR IMPROVEMENT

1. Acquisition of capable and promising staff including a pathologist-electron microscopist and a biochemist or pathologist-biochemist.
2. Increased space at the earliest possible moment in the hospital area to accommodate the staff, service, and resident teaching aspects of Pathology.
3. Establishing a restricted fund from professional services for use in development of the Department.
4. One additional technician and one secretary.
5. Establishment of regular interdepartmental conferences.

6. Rearrangement of curricula :

- a) Rescheduling of Sophomore curriculum so that Pathology teaching is in the afternoon so that voluntary visiting staff can assist.
- b) Integration of the Sophomore Pathology course with Microbiology and Clinical Pathology.
- c) Arrange Junior and Senior curricula to permit elective courses to carry throughout the year.
- d) Readjustment of the Sophomore Experimental Pathology to allow for original work during part of the year.
- e) Arrangements so Sophomore students in small groups can participate in four autopsies per year. This would require calling three to four students out of other classes than Pathology from time to time.

DEPARTMENT OF PEDIATRICS

STAFF

J. EDMUND BRADLEY, B.S., M.D., *Professor of Pediatrics and Head of the Dept.*
RUTH W. BALDWIN, B.S., M.D., *Assistant Professor of Pediatrics and Director of
the Pediatric Seizure Clinic.*

SAMUEL P. BESSMAN, M.D., *Associate Professor of Pediatrics.*

ANNE M. BESTERBREURTJE, B.A., M.D., *Assistant Professor of Pediatrics.*

LESTER H. CAPLAN, A.B., M.D., *Instructor in Pediatrics.*

THOMAS A. CHRISTENSEN, B.S., M.D., *Instructor in Pediatrics.*

RAYMOND L. CLEMMENS, B.S., M.D., *Associate in Pediatrics and Director of the
Developmental Clinic.*

GRANGE S. COFFIN, B.S., M.D., *Associate in Pediatrics.*

JOSEPH M. CORDI, A.B., M.S., M.D., *Instructor in Pediatrics.*

ROBERT M. N. CROSBY, M.D., *Instructor in Pediatrics.*

GARRETT E. DEANE, B.S., M.D., *Instructor in Pediatrics.*

LEON DONNER, B.S., M.D., *Assistant in Pediatrics.*

EDWARD G. FIELD, B.S., M.D., *Instructor in Pediatrics.*

JEROME FINEMAN, B.S., M.D., *Assistant Professor of Pediatrics.*

ABRAHAM H. FINKELSTEIN, M.D., *Associate Professor of Pediatrics.*

KURT GLASER, M.D., M.Sc., *Assistant Professor of Pediatrics.*

SAMUEL S. GLICK, A.B., *Assistant Professor of Pediatrics.*

HOWARD GOODMAN, Ph.G., B.S., M.D., *Instructor in Pediatrics.*

MARTIN K. GORTEN, B.A., M.D., *Associate in Pediatrics.*

MARY L. HAYLECK, A.B., M.D., *Instructor in Pediatrics.*

FREDERICK J. HELDRICH, JR., B.A., M.D., *Instructor in Pediatrics.*

CLEWELL HOWELL, B.S., M.D., *Associate in Pediatrics.*

DAVID JOSEPHS, A.B., M.D., *Assistant in Pediatrics.*

JOHN M. KRAGER, B.S., M.D., *Assistant in Pediatrics.*

ARNOLD F. LAVENSTEIN, A.B., M.D., *Instructor in Pediatrics.*

JAMES A. LYON, JR., A.B., M.D., *Instructor in Pediatrics.*

G. BOWERS MANSDORFER, B.S., M.D., *Associate in Pediatrics.*

MARY E. MATTHEWS, B.S., M.S., M.D., *Assistant in Pediatrics.*

FREDERICK R. MCCRUMB, M.D., *Associate in Pediatrics.*

ELEANOR L. MCKNIGHT, B.S., M.S., M.D., *Assistant in Pediatrics.*

ISRAEL P. MERANSKI, B.S., M.D., *Instructor in Pediatrics.*

ROBERT S. MOSSER, M.D., *Assistant in Pediatrics.*

WILLIAM A. NIERMANN, M.D., *Assistant in Pediatrics.*

WILLIAM S. PARKER, B.S., M.D., *Assistant in Pediatrics.*

CHARLES L. RANDOL, M.D., *Assistant in Pediatrics.*

LEONARD SCHERLIS, A.B., M.D., *Instructor in Pediatrics.*
 SIDNEY SCHERLIS, B.A., M.D., *Associate in Pediatrics.*
 WILLIAM M. SEABOLD, B.S., M.D., *Assistant Professor of Pediatrics.*
 HENRY M. SEIDEL, A.B., M.D., *Instructor in Pediatrics.*
 FRED. B. SMITH, M.D., *Associate Professor of Pediatrics.*
 MELCHIJAH SPRAGINS, A.B., M.D., *Associate in Pediatrics.*
 ALVIN A. STAMBLER, B.S., M.D., *Assistant in Pediatrics.*
 ARNOLD TRAMER, B.S., M.D., *Instructor in Pediatrics.*
 ARNOLD L. VANCE, B.S., M.D., *Assistant in Pediatrics.*
 STUART H. WALKER, M.D., *Assistant in Pediatrics.*
 WILLIAM E. WEEKS, B.S., M.D., *Assistant in Pediatrics.*
 GIBSON J. WELLS, B.S., M.D., *Assistant Professor of Pediatrics.*
 J. CARLTON WICH, B.S., M.D., *Assistant in Pediatrics.*

House Staff:

DANIEL ANDERSON, M.D., *Assistant Resident.*
 EDWIN BESSON, M.D., *Assistant Resident.*
 EUGENE BLANK, M.D., *Assistant Resident.*
 JOAN M. C. NOBLE, M.D., *Assistant Resident.*
 MARVIN S. PLATT, M.D., *Assistant Resident.*
 INGE RENNER, M.D., *Assistant Resident.*
 HILDEGARD ROTHMUND, M.D., *Assistant Resident.*
 KARL WEAVER, M.D., *Resident.*
 ROBERT E. YIM, M.D., *Resident.*

RESEARCH

The following grants-in-aid, totaling \$154,578.75, were received to support research and educational activities in the Department of Pediatrics:

Dr. Ruth Baldwin:

U. S. Children's Bureau	\$10,000.00	Maryland Epilepsy Program
*Nat. Institutes of Health	15,354.00	Effectiveness of 1-asparagine in the control of seizures (ended Dec. 30, 1957)

Dr. Samuel P. Bessman:

Nat. Science Foundation	13,000.00	Feedback system relating glucose metabolism to oxidations
Public Health Service	500.00	Study of metabolism of the salivary gland (in behalf of Dr. I. Ivens)
Public Health Service Post Sophomore Research Fel- lowship for Nicholas Bachur	4,578.00	
Public Health Service (Renewal)	24,000.00	Brain metabolism & systemic disease

* In conjunction with Department of Neurology—Charles Van Buskirk, M.D.

National Cystic Fibrosis Research Foundation (Extension without additional funds)	5,750.00	Metabolism of the salivary glands in cystic fibrosis of the pancreas
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American Cancer Society (Extension without additional funds)	6,000.00	The formation and utilization of gamma hydroxybutyric acid
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Dr. J. Edmund Bradley:

National Institute Health	15,330.00	Lead intoxication
Mead Johnson	500.00	Resident education
Children's Bureau	6,000.00	Program for premature infants
Greater Baltimore Mental Hygiene Society	20,000.00	For support of Mental Hygiene Society Child Guidance Clinic administered jointly by Dept. of Pediatrics and Psychiatry

Dr. J. Edmund Bradley and Dr. Raymond L. Clemmens:

Public Health Service	5,405.00	The role of ammonia in the lethargic state of the newborn (continuation)
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Dr. J. Edmund Bradley and Dr. Grange Coffin:

Eli Lilly	3,000.00	Penicillin evaluation
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Dr. Martin K. Gorten:

Public Health Service	5,838.00	Blood ammonia in erythroblastosis
Ross Laboratories	4,000.00	Iron kinetics in infancy
Hoffman-La Roche	3,456.75	Hyperbilirubinemia in premature & full-term infants receiving vitamin K

Dr. Ennis C. Layne:

Playtex Park Research Institute	6,347.00	
National Institute Health	5,520.00	Terminal respiration in azotobacter vinelandii

The following research projects are in progress in the Department:

Studies of effects of Benadryl, Dilantin and reserpin (using double blinds) on behavior reactions of children showing organic brain damage with behavior disturbances.

Effect of 1-asparagine in control of seizures. Ended December 20, 1957.

Effect of the following experimental medications in seizure cases using: Diamox, Lederle; Diuril, Merck Sharp & Dohme; Nostyn, Ames.

Origin of blood ammonia in newborn.

Sweat and saliva electrolytes in children.

Acquired pectus excavatum in the newborn.

Search for antibacterial substances in human placentas.

Controlled study of the effect of ephedrine on bedwetting.

Controlled comparison of the effectiveness of Penicillin V and Penicillin G.

Group discussions with parents of children with rheumatic heart disease and their effect on: 1) attitude of the parents toward the illness, the child and the doctors; 2) their knowledge of the illness and its effects.

Blood ammonia in erythroblastosis.

Iron kinetics in infancy.

Hyperbilirubinemia in premature and full-term infants receiving Vitamin K.

Platelet studies in normal premature infants.

Management of the anemia of chronic infection (Tbc).

Subterm induction of labor in erythroblastosis (in cooperation with Dr. Kaltreider).

The prevention and management of nutritional anemia of infancy.

Electrotransport and oxidation phosphorylation.

Mechanism of insulin action.

Efficacy of medrol and triamcinolone in treatment of bronchia asthma.

Effects of steroids on growth of asthmatic children.

Incidence of allergic disease in general pediatric practice.

Lead intoxication.

Effect of steroids on kerosene poisoning.

GRADUATE PROGRAM

The department continues to conduct training programs for rotating, mixed, affiliating, and straight interns, as well as pediatric residents. During the year the total was 100, representing physicians from the following hospitals: Mercy, Church Home, Saint Joseph's, Saint Agnes, Lutheran and Marine. The preceding were in addition to the interns and residents appointed at the University Hospital.

Twelve physicians and fellows were trained in the laboratory under the direction of Dr. Samuel P. Bessman. We have two fellows from Japan, with requests from England and elsewhere for training. Mr. Nicholas Bachur, medical student, candidate for the Ph.D., has spent the year in the department in research.

Dr. Breffin O'Neill of Nassau spent two months in refresher work in the department.

The Seventh Annual Pediatric Seminar, under the chairmanship of Dr. William Seabold, was eminently successful with speakers from Boston, New York and Durham, North Carolina.

The department initiated a weekly research conference under the direction of Dr. Ennis Layne. This conference has steadily grown in popularity among basic research investigators.

The department has been honored with visits from many distinguished guests of this country as well as foreign countries such as Japan, Australia, Belgium, England and others.

Dr. Melchijah Spragins taught Pediatrics during the postgraduate cruise sponsored by the Postgraduate Committee of the University of Maryland, School of Medicine.

STATISTICAL ANALYSIS, WORK DONE AND SERVICE RENDERED

There were 40,000 infants and children seen in the Outpatient Clinics of the Pediatric Department during the fiscal year 1957-58. This represents an increase of 6,000 over the preceding year.

Inpatient occupancy has been in excess of 1956-57; through April percentage bed occupancy averaged 86%, with 101% in April. There were only two months when occupancy was less than 80%, July and August with occupancies of 79 and 71%, respectively.

Nursery percentage bed occupancy through April was 68.2. This is essentially the same as in 1956-57; however, this number of infants is in excess of facilities available within the newborn nursery to provide safe care.

The Clinic for Adolescents, under the direction of Dr. Kurt Glaser, was opened in January, 1958. This is the first clinic of the kind in Maryland and has already attracted a considerable amount of lay and professional interest. Prior to the opening of the Clinic, Dr. Glaser was sent to Boston to observe a similar clinic under Dr. Roswell Gallagher of the Harvard Children's Center.

The Central Diagnostic Clinic for Handicapped Children, under the direction of Dr. Raymond L. Clemmens, will begin to function about July 15, 1958. The staff will consist of Dr. Michael Elyan, Assistant Director; Dr. Alfredo Portera, Neurologist; Miss Ruth Baumgartner, Psychologist, Mr. John Carter, Audiologist and Speech Therapist. This multi-disciplined approach to the problems of the handicapped child should provide tremendous opportunity to teach comprehensive medicine in this area, as well as stimulating research as to cause and treatment.

COMMUNITY SERVICE

Members of the Pediatric Department participated in numerous activities throughout the community. A partial list of activities of members follows:

NON-SCIENTIFIC PAPERS

Dr. Ruth Baldwin:

Panel Discussion on Mental Retardation, American Legion Aux., Baltimore.
 "Present Day Needs of Mentally Normal Epileptic Patients," Board of Directors and Members of King's Daughters of Maryland, Baltimore.

Dr. J. Edmund Bradley:

WRC—radio, Washington, D. C., "Lead Poisoning in Children."
 CBS—National, "Adventures in Science," Moderator Watson Davis.

Dr. Raymond L. Clemmens:

Summer Safety, WCAO Radio.
 "The Hospital Care of Newborn Infants," Yorkewood Women's Club.

Dr. Robert M. N. Crosby:

Congress of Neurological Surgery (Guest Speaker).
 Virginia Pediatric Society (Guest Speaker).
 Richmond Academy of Medicine (Guest Speaker).

"Symposium Behavior Disorders in Children," Doctor's Hospital (Guest Speaker).

Television Program—TV-Md.

Radio—Maryland Society Mental Retardation.

Woman's Club of Severna Park.

"Mental Retardation in Children."

Dr. Kurt Glaser:

"Mother Deprivation," Lecture to Teachers at McCoy College.

"Emotional Characteristics of the Adolescent," Adolescent Unit Staff Conference.

"Problems of Teen-Agers," Temple Oheb Shalom.

Capsule Course, Parent Education, Fallstaff Road School, P.T.A., "Where Are Our Children's Manners?"; "When Should We Say 'No'?"; "Must We Keep Up With the Joneses?"

"Avoiding Behavior Problems," Child Study Association of Baltimore, Beth Jacob Child Study Group.

"Psychiatric Care in Community Setting," Baltimore Council of Social Agencies.

"You and Your Children's Problems," TV-Md.

"Those Physical Changes in Adolescence," Catonsville Jr. High School P.T.A.

"Each Member's Niche in the Family," North West Cooperative Nursery.

"Sex Education," Uptown Chapter Child Study Group.

"The Growing Edges of Parent Education," Moderator, Panel Discussion, Parent Education Institute.

"Parent-Child Relationship," Forest Garden Child Study Group.

Dr. Samuel S. Glick:

"Your Child and You," Parent, Teacher Club of Greenspring Ave. Synagogue.

"The Prevention of Communicable Diseases," Child-Study Association, North Baltimore Branch.

Dr. Ennis Layne:

Arlington Public School, Kindergarten Class.

Membership on local, state and national committees is listed below. The variety of committees indicates the wide interest which the department maintains in all phases of child welfare.

Dr. Ruth W. Baldwin:

Alternate Delegate, Baltimore City Medical Association.

Chairman, Medical Advisory Board of the State of Maryland, Department of Motor Vehicles.

Subcommittee on Medical Services and Facilities for Handicapped Children in Maryland, State Planning Commission.

Advisory Board, Maryland Society for Mentally Retarded Children, Inc.

Advisory Board, Eastern Shore Epilepsy Association.

Consultant in Epilepsy, Rosewood State Training School.

Consultant in Epilepsy, Maryland State Department of Health.

Consultant in Epilepsy, Provident Hospital, Baltimore, Maryland.

Consultant, Cambridge General Hospital, Cambridge, Maryland.

Consultant, Silver Cross Home for Epileptics, Reisterstown, Maryland. Closed November, 1957.

Dr. Samuel P. Bessman:

Poison Control Committee of the University Hospital.

Dr. J. Edmund Bradley:

Council of Medical Care, State of Maryland.

Consultant, Baltimore City Department of Health.

Maternal and Child Welfare, Medical and Chirurgical Faculty, Chairman, Pediatric Section.

Central Coordinating Committee on Poliomyelitis Vaccination, Medical and Chirurgical Faculty, Chairman.

Committee, Fetus and Newborn, Academy of Pediatrics, Maryland Chapter, Chairman.

Medical Advisory Committee, National Foundation Infantile Paralysis.

Medical Advisory Committee, United Cerebral Palsy.

Board of Directors, St. Francis School of Special Education.

Board of Directors, Mental Hygiene Society, Greater Baltimore.

Board of Directors, Children's Guild.

Teaching Consultant, U. S. Army, Aberdeen.

Consultant, Pediatrics, Provident Hospital.

Chief of Pediatrics, Lutheran Hospital.

Consultant Pediatrics, Kernan's Hospital for Crippled Children.

Consultant Pediatrics, South Baltimore General Hospital.

Maryland State Planning Commission, Committee on Medical Care.

Subcommittee on Medical Services and Facilities for Handicapped Children in Maryland.

Subcommittee on Mentally Retarded Children.

Regional Committee on Pediatric Education, American Academy of Pediatrics.

Standardized records of maternal and neonatal statistics.

Dr. Raymond L. Clemmens:

Advisory Committee, Maryland Society for Mentally Retarded Children.

School Physician, St. Francis School of Special Education.

Committee on Maternal and Child Health, Medical and Chirurgical Faculty.

Dr. Kurt Glaser:

Heart Association of Maryland, Public Education Committee.

Maryland State Planning Commission, Committee on Medical Care.

Subcommittee on Medical Services and Facilities for Handicapped Children in Maryland.

Maryland Commission for the Prevention and Treatment of Juvenile Delinquency, Committee on Health and Delinquency.

Baltimore Parent Education Council, Subcommittee on Classes for Parents of Infants.

Committee on Juvenile Delinquency of the Maryland Chapter of the American Academy of Pediatrics (Chairman).

Dr. Samuel S. Glick:

Director of the Phi Delta Epsilon Fraternity Medical Students Loan Fund
(for needy Johns Hopkins and University of Maryland Students).

Completed term of office of Chairman, Pediatric Section, Baltimore City
Medical Society.

Baltimore Chairman (and member of the Board of Directors) of the Arron
Brown Lectureship Fund which brought Dr. Turnbull (of the Cleveland
Clinic) to lecture to the Medical School.

Dr. Martin Gorten:

Executive Committee, South Baltimore General Hospital.

Baltimore City Hospital Obstetrics Staff.

Credentials Committee, South Baltimore General Hospital.

Nursing Committee, South Baltimore General Hospital.

Committee for Control of Hospital Infections, South Baltimore General Hosp.

Dr. Ennis C. Layne:

Publicity Committee of the local section of the American Chemical Society.

Dr. William Niermann:

Board of Child Care of the Methodist Church; Official Board, Northwood-
Appold Methodist Church.

Education Committee, Maryland General Hospital.

PUBLICATIONS BY PEDIATRIC STAFF MEMBERS

CLEMMENS, R. L., SHEAR, S. B. and BESSMAN, S. P.: Ammonia in the Blood in Newborn
Infants, *Pediatrics* 21:1, 1958.

GORTEN, M. K., SHEAR, S. B., HODSDON, M. and BESSMAN, S. P.: Complications of Hyper-
bilirubinemia in the Newborn—Possible Relation to the Metabolism of Ammonia, *Pediatrics*
21:1, 1958.

BESSMAN, S. P. and DOORENBOS, N. J.: Chelation, *Ann. Int. Med.* 47:5, 1957.

BESSMAN, S. P.: Genetics and Glycolysis, *Ann. Int. Med.* (In press.)

SCHERLIS, L., BESSMAN, S. and GONZALES, L.: Myocardial Uptake and Coronary Sinus—Arterial
Gradients of Quinidine Gluconate, Third World Congress of Cardiology, 1958. (In press.)

BRADLEY, J. E. and BESSMAN, S. P.: Poverty, Pica and Poisoning, *Public Health Reports*
73:467, 1958.

BRADLEY, J. E. and BAUMGARTNER, R.: Subsequent Mental Development of Children with Lead
Encephalopathy: Relation to Treatment, *J. Pediat.* (In press.)

BRADLEY, J. E. and WILSON, M.: Teaching Community Resources in Pediatrics, *J. Med. Educ.*
(In press.)

BRADLEY, J. E.: Poisoning in Children, *West Virginia M. J.* (In press.)

BRADLEY, J. E.: Educational Value of Out-patient Service, *U. S. Armed Forces M. J.* (In
press.)

CODINGTON, J. B. and PLATT, M. S.: Hydrops of the Gall-bladder: Presenting an Asymptomatic
Abdominal Mass in a 22 Month Old Infant, *South. M. J.* (In press.)

CLEMMENS, R. L., SHEAR, S. and BESSMAN, S. P.: Ammonia in the Blood in Newborn Infants,
Pediatrics 21:1, 1958.

CLEMMENS, R. L. and BESSMAN, S. P.: The Ammonia Content of the Gastric Juice in the
Newborn Infant, *A. M. A. Am. J. Dis. Child.* Nov. 1957.

CROSBY, R. M. N. and BOUDREAU, R.: Pneumoencephalography in Subdural Collections of Fluid
in Infants and Children, *Am. J. Roentgenol. Rad. Ther. & Neurol. Med.* (In press.)

COFFIN, G. S.: Tetracycline with Vitamins in the Treatment of Acute Respiratory Infections in
Children, *Antibiot. Med. & Clin. Ther.* (In press.)

- GLASER, K.: Problems in School Attendance (School Phobia and Related Conditions). Pediatrics. (In press.)
- GLICK, S. S.: The Jew in Medicine, Sinai Hosp. M. J.
- GORTEN, M. K., SHEAR, S., HODSDON, M. and BESSMAN, S. P.: Complications of Hyperbilirubinemia in the Newborn-Possible Relation to the Metabolism of Ammonia, Pediatrics 21:27, 1958.
- NIERMANN, W. A. and VAN METRE, JR., T. E.: Medrol in Treatment of Bronchial Asthma, Metabolism. (In press.)

In addition to the preceding list of publications, scientific papers were presented by members of the department. They were as follows:

Dr. Ruth W. Baldwin:

- "Workshop on Handicapped Children: 1) Neurological Disorders; 2) Use of Drugs," William S. Baer School, Baltimore City Dept. of Education.
- "Epilepsy," Rosewood State Training School, Department of Nurses, Rosewood State Training School.
- "Newer Aspects of Epilepsy," Salisbury, Md., Wicomico Health Dept. Nurses.
- "Newer Aspects of Epilepsy," Chestertown, Md., Kent and Queen Anne's County Health Department, Psychology Students of Western Maryland College.
- "Newer Aspects of Epilepsy," Cambridge, Md., Dorchester County Health Dept.
- "Newer Aspects of Epilepsy," Prince George's General Hospital, Cheverly, Md., Dept. of Nurses, Prince George's General Hospital and Prince George's Health Department.
- "Newer Aspects of Epilepsy," Frederick, Md., Frederick Health Department, Department of Special Education, Frederick Board of Education.
- "Newer Aspects of Epilepsy," Hagerstown, Md., Washington County Health Department, Department of Special Education, Washington County Board of Education.
- "Newer Aspects of Epilepsy," Westminster, Md., Carroll County Medical Assoc.
- "Epilepsy in Public Health Work," Baltimore, Md., Johns Hopkins School of Public Health.
- "Biochemical Factor of Epilepsy and Mental Retardation," Rosewood State Training School, Consultant Staff Quarterly Meeting at Rosewood State Training School.
- "Pediatrics as Related to Physiotherapy," University of Maryland, School of Physiotherapy.

Dr. Samuel P. Bessman:

- "Origin of Blood Ammonia in the Newborn," Society for Pediatric Research, Atlantic City, N. J., R. L. Clemmens and S. P. Bessman.
- "Treatment of Glycogen Storage Disease with Glucogon," Society for Pediatric Research, Atlantic City, N. J., R. Yim, J. McLaughlin and S. P. Bessman.
- "Glycogen Synthesis and the Mechanism of Action of Insulin," Society for Pediatric Research, Atlantic City, N. J., S. P. Bessman and J. Fitzgerald.

- "Mechanism of Diabetes Mellitus," Federation of American Society of Biological Chemists, Philadelphia, Pa., S. P. Bessman, N. Bachur, E. C. Layne and J. Fitzgerald. *Fed. Proc.*, 17:1, 190-1958.
- "Biochemical Changes in Liver Failure," American College of Physicians, Richmond, Va.
- "Inborn Errors of Carbohydrate Metabolism," City of Hope Medical Center, Conference on Hereditary Diseases in Children, Duarte, Calif.
- "Marsilid Symposium," Participant, New York City.
- "The Stimulation of Phosphorylation in Mitochondria," American Chemical Society, New York City, E. C. Layne and S. P. Bessman.
- Maryland Society of Medical Technologists, Maryland General Hospital, Baltimore, Md., January, 1958.
- "Salivary Secretion of Chloride and Other Electrolytes in Mucoviscidosis," American Chemical Society, Baltimore, Md., I. Ivens and S. P. Bessman.
- "The Microdetermination of Ammonia and Its Application to Biological Problems," American Chemical Society, Baltimore, Md.
- "Electronics in Medicine," Armed Forces Communication Electronics Association, University Hospital.
- "Diabetic Acidosis," Mercy Hospital, Pediatric Staff.
- "What Is the Ammonia Theory of Liver Coma and How Is Treatment of Coma Carried Out," Conference on Liver Failure, Johns Hopkins Hospital.
- "The Role of Ammonia in Clinical Medicine," Howard University, Staff and medical students.
- Pediatric Clinical Conference, Cedars of Lebanon Hospital, Los Angeles, Calif.
- General Staff Rounds Conference, Department of Pediatrics, The Children's Hospital Research Foundation, Cincinnati, Ohio, December, 1957.
- "Biological Chemistry As It Pertains to Medicine," Student Affiliates of the American Chemical Society, College of William & Mary, Williamsburg, Va.
- "Conference on Lead Poisoning," Occupational Health Field Headquarters, Cincinnati, Ohio.
- "Conference on Lead Poisoning," U. S. Pub. Health Service, Washington, D. C.
- "The Role of Ammonia in Liver Disease," Church Home and Hospital.
- "Phenylpyruvic Oligophrenia," Baltimore City Medical Society.
- "Chromatography," American Association of Clinical Chemists, Walter Reed Army Institute of Research.

Dr. J. Edmund Bradley:

- "Growth and Development Appraisal," "Metabolic Disorders," "Nephrotic Syndrome," "Tuberculosis in Children," "Management of Bacterial Meningitis," "Diagnostic Pot-pourri," Aberdeen Proving Grounds Medical Staff.
- "Postgraduate Course in Pediatrics," "Treatment of Bacterial Meningitis," "Poisoning in Children," "Trends in Medical Education," University of Nebraska, Omaha, Neb.
- "Educational Value of Outpatient Service," Conference Hospital Commanders, Fort George G. Meade.
- Attending Pediatrician, Harriet Lane Home, Johns Hopkins Hospital (March).

Dr. Raymond L. Clemmens:

"Origin of Blood Ammonia in the Newborn," Society for Pediatric Research, Atlantic City, N. J., R. L. Clemmens and S. P. Bessman.

"Common Problems in the First Year of Life," Southern Health District Monthly Meeting, Baltimore City Health Department.

Dr. Kurt Glaser:

"Psychometric Considerations in Testing Mentally Retarded Children," Rosewood State Training School.

"Emotional Problems in Children," Baltimore City Health Department, Public Health Nurses.

"Psychiatric Implications in Pediatric Practice," Mercy Hospital Pediatric Meeting.

Dr. Martin Gorten:

"Nutritional Anemia," closed circuit TV program, Alumni Day, Alumni Association, University of Maryland, School of Medicine.

"Management of Rh Negative Mother," Baltimore City Hospitals, Obstetrics Staff.

"Management of the Rh Positive, Coombs Test Positive Infant," Baltimore City Hospitals, Obstetrics Staff.

"Erythroblastosis-Fetalis, Technical Aspects," Maryland Society of Medical Technologists.

"Role of Ammonia in Complication of Erythroblastosis in Infancy," Baltimore City Medical Society, Pediatric Section.

Dr. Ennis C. Layne:

"Stimulated Oxidative Phosphorylation in Rat Liver Mitochondria," American Chemical Society, New York Meeting.

Dr. William A. Niermann:

"Efficacy of Medrol in Treatment of Bronchial Asthma," American Academy of Allergy, Philadelphia, Penna.

RECOMMENDATIONS

The Department of Pediatrics continues to need additional space to fulfill properly the teaching, research, and service requirements in the field of child care.

These spacial deficits are particularly obvious in the General Outpatient Clinic where examining and teaching areas are grossly inadequate and overcrowded. Renovations of this area have been requested for a number of years and continued delay results in further crowding in an already overcrowded area.

The increasing utilization of this area for teaching of medical students, interns and residents plus the increasing patient load (6,000 more patients in 1957-58 than in 1956-57) entitles this area to a high priority.

Specialty Clinics within the Department, such as Child Guidance, Adolescent, Cardiology, Hematology, have all requested additional space. Their requests are justified and while efforts at improvisation are being made the clinics continue to be

handicapped by space limitations. The creation of necessary new clinics to strengthen our teaching and research program is not possible within our present area. This represents a serious handicap to a growing vigorous department.

The full-term nursery lacks sufficient space to meet the requirements of local and national agencies on Newborn Nurseries. This applies to admitting, observation, and contact nurseries.

The Formula Room, which at present is divided into a Clean-up Room located on the 5th floor of the University Hospital and Preparation Room on the 6th floor, should be combined and constructed to accepted recommendations for Formula Rooms.

The Inpatient area of the Department, while improved to a modest extent by the opening of 5E, will continue to be crowded and essential areas for private patients, an adolescent-inpatient unit will not be provided.

The recommendations for a Child Care Center made in the Annual Report of 1956-57 continue to apply.

DEPARTMENT OF PHARMACOLOGY

STAFF

JOHN C. KRANTZ, JR., B.S., M.S., Ph.D., *Professor of Pharmacology and Head of the Department*

FREDERICK K. BELL, A.B., Ph.D., *Assistant in Pharmacology*

RAYMOND M. BURGISON, B.S., M.S., Ph.D., *Associate Professor of Pharmacology*

RUTH MUSSER, B.A., M.S., *Instructor in Pharmacology*

EDWARD B. TRUITT, JR., B.S., Ph.D., *Associate Professor of Pharmacology*

Adjunct Faculty:

C. JELLEFF CARR, Ph.D., *Adjunct Professor of Pharmacology*

From the Academy of General Practice:

JOSEPH S. BLUM, M.D.

AARON C. SOLLOD, M.D.

JOSEPH C. FITZGERALD, M.D., *Resident in Medicine*

ROBERT T. SINGLETON, M.D., *Resident in Medicine*

OPERATING PLAN AND IDEOLOGY

The aim of the course is to teach the principles which underlie the use of drugs in the treatment, cure, mitigation and diagnosis of disease.

TEACHING

The instruction is designed to include those phases of pharmacology necessary for an intelligent use of drugs in the treatment of disease. The didactic instruction includes materia medica, pharmacy, prescription writing, toxicology, posology, pharmacodynamics, and experimental therapeutics. The laboratory exercises parallel the course of lectures. In addition, conference periods and discussion groups are given weekly with the faculty and adjunct faculty.

From 10 to 15 visiting lecturers give instruction to our class in the broader aspects of pharmacology and many current research projects. The teaching is integrated with the clinical departments of medicine, anesthesiology, and obstetrics by interdepartmental lectures.

RESEARCH

1. Synthesis and pharmacologic study of theophylline derivatives in hypertension.
2. Synthesis and pharmacologic study of new organic nitrates in angiospastic disease.
3. Study of new fluorinated ethers as anesthetics.
4. Study of new fluorinated ether (Indoklon) in the treatment of mentally ill patients.

5. Alcohol and acetaldehyde in cerebral metabolism.
6. Salicylate absorption.
7. Aliphatic iodides in torulosis (with microbiology).
8. Alkali metal ions and red cell hemolysis.
9. Myristicin euphoria and toxicity (with psychiatry).
10. Toxicity of organic boron derivatives.

GRADUATE PROGRAM

Three students working for Ph.D. degree.

Participation in graduate instruction in basic science in Postgraduate Committee.

Graduate course in chemotherapy: 62 hours given to graduate students on Baltimore campus by Dr. Burgison.

FACILITIES AND EQUIPMENT

Third floor of Bressler Building with adequate equipment for teaching and research in pharmacology and cognate sciences.

COMMUNITY SERVICE

Service on U.S.P. Revision Committee.

Scientific papers presented at national and local meetings by staff members.

Numerous public lectures by staff members.

Dr. Raymond M. Burgison served as Chairman of the Maryland Chemical Society.

Textbook, *Modern Pharmacology and Therapeutics*, Ruth D. Musser and Joseph G. Bird. The Macmillan Company, New York, 1958.

PUBLICATIONS BY PHARMACOLOGY STAFF MEMBERS

- TRUITT, E. B.: Some Pharmacologic Correlations of the Chemotherapy of Mental Disease, *J. Nerv. & Ment. Dis.* 126:184, 1938.
- TRUITT, E. B.: Pharmacologic Modification of Mental Disease, *Klin. Wchnschr.*, 1958. (in press.)
- KRANTZ, JR., J. C., ESQUIBEL, A., TRUITT, JR., E. B., LING, A. S. C. and KURLAND, A. A.: Hexafluorodiethyl Ethel (Indoklon)—an Inhalant Convulsant, *J.A.M.A.* 166:1555, 1958.
- KRANTZ, JR., J. C., PARK, C. S., TRUITT, JR., E. B. and LING, A. S. C.: Anesthesia LVII. A Further Study of the Anesthetic Properties of 1,1,1, Trifluoro-2,2-bromochlorethane (Fluothane), *Anesthesiology* 19:38, 1948.
- BRYANT, H. H., FELTON, L. C. and KRANTZ, JR., J. C.: A Pharmacologic and Toxicologic Study of a New Series of Antispasmodic Compounds with Special Reference to Structures and Pharmacologic Activity, *J. Pharmacol. & Exper. Therap.* 121:210, 1957.
- KRANTZ, JR., J. C., TRUITT, JR., E. B., LING, A. S. C. and SPEERS, L.: Anesthesia LV. The Pharmacologic Response to Hexafluorodiethyl Ether, *J. Pharmacol. & Exper. Therap.* 121:362, 1957.
- ESQUIBEL, A., KRANTZ, JR., J. C., TRUITT, JR., E. B. and KURLAND, A. A.: *Am. J. Psychiat.* 114, November 1957.
- KRANTZ, JR., J. C.: On Hydrochloric Acid, *Cur. M. Digest* 24:53, 1957.
- LING, A. S. C., TRUITT, JR., E. B. and KRANTZ, JR., J. C.: A Note on the Effect of Boric Acid and Sodium Metaborate on the Oxygen Uptake of Brain Tissue, *J. Am. Pharm. A.* 46:569, 1957.
- KRANTZ, JR., J. C., TRUITT, JR., E. B., SPEERS, L. and LING, A. S. C.: New Pharmacococonvulsive Agent, *Science* 126:353, 1957.

DEPARTMENT OF PHYSIOLOGY

STAFF

WILLIAM R. AMBERSON, Ph.B., Ph.D., *Professor of Physiology and Head of the Department*

DIETRICH C. SMITH, B.A., M.A., Ph.D., *Professor of Physiology*

FREDERICK P. FERGUSON, B.A., M.A., Ph.D., *Professor of Physiology*

JOHN I. WHITE, B.A., Ph.D., *Assistant Professor of Physiology*

SAMUEL L. FOX, Ph.G., B.S., M.D., *Assistant Professor of Physiology*

ARMAND J. GOLD, A.B., M.S., Ph.D., *Assistant Professor of Physiological Research*

SYLVIA HIMMELFARB, A.B., *Instructor in Physiology*

J. HENRY WILLS, B.S., M.S., Ph.D., *Lecturer in Physiology*

JEANNE Q. BARRY, B.A., *Junior Instructor in Physiology*

DOROTHY W. MCCONNELL, B.S., M.S., *Research Assistant in Physiology*

GENERAL STATEMENT

The Department is organized (1) to teach physiology to freshmen medical students, (2) to instruct graduate students, and (3) to conduct investigation.

TEACHING

The basic course in physiology is given to first year medical students in the second semester. The course includes 75 lectures, 15 conferences, and 120 laboratory hours for each student. Lectures are prepared by staff members mainly from the original literatures, rather than from textbooks. A free atmosphere is maintained in lecture and laboratory, with student question and suggestion invited, optional work is permitted, and a critical attitude encouraged. Mammalian operative work is emphasized. A portion of the laboratory sequence consists of demonstrations, including ophthalmoscopy, electrocardiography, the electroencephalogram, radiology, radioisotopes, the oscilloscope, electrophoresis, and the ultracentrifuge.

Dr. White has participated in the teaching program of the Department of Obstetrics and Gynecology.

RESEARCH

1. Dr. Ferguson, Dr. Smith, Dr. Gold, Mrs. Barry, and Miss Elaine Silver have continued their investigation of the effects of acute decompression stress on plasma electrolytes and renal function in dogs. Attention has been directed primarily to an examination of the role of acid-base changes of respiratory origin in the development of hypokalemia (decreased plasma potassium concentration) during expo-

sure to a simulated altitude of 30,000 feet for 30 to 90 minutes. Studies carried out to date indicate that respiratory alkalosis, initiated by hypoxia, constitutes the major cause of the hypokalemic response. In September, 1957, Dr. Gold presented a paper dealing with some preliminary aspects of this work at the meeting of the American Physiological Society in Iowa City, Iowa. The program is being supported by a grant from the U. S. Public Health Service.

2. Dr. Amberson, Dr. White, and Miss Himmelfarb have continued research in the muscle protein field, aided by grants from the U. S. Public Health Service. Main emphasis continues to be placed on the new fibrous muscle protein, delta protein, whose properties were described last year. The studies have included:

(a) An effort to clarify the relationships between delta protein and the nucleotropomyosin of Hamoir. There is no evidence that the protein moiety of the latter protein is delta protein. Ultracentrifuge and viscosity data seem to show that nucleotropomyosin is an artifact, formed by the union of tropomyosin and ribonucleic acid. Delta protein is not involved.

(b) An electron microscope study of the crystal structure of delta protein. This work has been done at the Marine Biological Laboratory, Woods Hole, Mass., in collaboration with Mr. Delbert Philpott. Definite periodicities of several dimensions have been detected in chromium and platinum shadowed crystal surfaces. Visualizations of single delta protein molecules have been obtained by the courtesy of Dr. Cecil Hall, of the Massachusetts Institute of Technology.

(c) Search for the physiological significance of delta protein. New electronic equipment has been installed for the study of the tension developed in single muscle fibers. This equipment will be used in a study of the effect of delta protein upon the strength of muscular contraction.

GRADUATE PROGRAM

Graduate students take the basic course with the medical students. They meet with a member of the staff each week for further discussion of major topics. Other graduate courses are available, as shown in the catalogue.

FACILITIES AND EQUIPMENT

The year has been notable in the amount of new special equipment obtained for teaching and research. This equipment includes the following major items:

- Air conditioning of Rooms 404, 405, 407 and 420
- Grass Model 5 Polygraph, 2 channels
- Grass EEG Preamplifier, Model P5
- Grass Stimulator, Model 54C
- Additional Channels for Grass Console #1330
- Harvard Variable Speed Pump #607
- DuMont Recording Camera #1553K
- DuMont Single Oscilloscope #304A
- Sanborn Twin Visocardiette #60
- Bell and Howell Magnetic Optical Sound Movie Projector #302E

COMMUNITY SERVICE

Dr. Dietrich C. Smith as Secretary of the Maryland Society for Medical Research has been responsible for arranging numerous tours during the year through the research laboratories of the School of Medicine and for directing a program designed to acquaint young people with the various possibilities for careers in medical research and teaching. Dr. Smith serves as a director of the National Society for Medical Research and as a member of the Subcommittee on Health Standards of the Institute of Animal Resources of the National Academy of Sciences. He has also been an active participant in the conferences of the Southern Association of Medical Colleges on admission procedures and student affairs.

PUBLICATIONS BY PHYSIOLOGY STAFF MEMBERS

- SMITH, D. C.: Broadening Public Understanding of Animal Experimentation, *J. M. Educ.* 32:476, 1957.
- GOLD, A. J., FERGUSON, F. P. and BARRY, J. Q.: Hypokalemia and Respiratory Alkalosis in Anesthetized Dogs during Acute Decompression Stress, *Physiologist* 1:33, 1957.
- WHITE, J. I. and HIMMELFARB, S.: Properties of Crystalline Δ Protein, *Physiologist* 1:88, 1957.
- AMBERSON, W. R.: The Influence of Fashion in the Development of Knowledge Concerning Electricity and Magnetism, *Am. Scientist* 46:33, 1958.

RECOMMENDATIONS FOR IMPROVEMENT

The Department should have additional space. A number of small rooms are needed for special techniques taught in the basic medical physiology course. If more graduate students are to be enrolled, one or two more rooms should be available.

The Survey Team which examined the School of Medicine in November, 1955, recommended the creation of a new instructorship in this Department, to be filled by a young Ph.D. skilled in electronic methods. Proposals for the creation of this recommended post have not been accepted by the administration.

DEPARTMENT OF PREVENTIVE MEDICINE AND REHABILITATION

STAFF

MAURICE C. PINCOFFS, B.S., M.D., *Professor of Preventive Medicine and Rehabilitation, and Head of the Department*

HUNTINGTON WILLIAMS, A.B., M.D., *Professor of Hygiene and Public Health*

ALEXANDER S. DOWLING, A.B., M.D., *Associate Professor of Preventive Medicine*

WILLIAM H. F. WARTHEN, A.B., M.D., *Associate Professor of Hygiene and Public Health*

FLORENCE I. MAHONEY, B.S., M.S., M.D., *Associate Professor of Physical Medicine*

MATTHEW L. TAYBACK, A.B., M.A., Ph.D., *Assistant Professor of Biostatistics*

JOE L. STOCKARD, B.S., M.D., *Assistant Professor of Preventive Medicine*

SAMUEL M. REICHEL, A.B., M.D., *Assistant Professor of Physical Medicine and Rehabilitation*

MORRIS CHELSKY, M.D., *Associate in Preventive Medicine*

AUBREY D. RICHARDSON, B.S., M.D., *Associate in Preventive Medicine*

DOROTHEA W. BARTHEL, A.B., P.T., *Instructor in Rehabilitation*

MARY M. BRUMFIELD, *Assistant in Preventive Medicine (Social Service)*

JANET M. HOLMES, R.N., *Assistant in Preventive Medicine (Social Service)*

Dr. Maurice C. Pincoffs retired as Professor and Head of the Department as of June 30, 1958. Dr. George Entwisle was appointed to fill this position.

Dr. Robert E. Farber resigned his position as Health Officer of the Western Health District and his appointment in the Department. Dr. Morris Chelsky was appointed to this position on December 1, 1957. Dr. Samuel Reichel also resigned December 30, 1957. Dr. Paul Richardson was appointed as Assistant Professor of Physical Medicine and Rehabilitation and will assume his duties on July 15, 1958. Dr. Joe L. Stockard left the Department at the end of the school year to pursue his studies in Epidemiology at the Johns Hopkins School of Hygiene and Public Health where he will work for his doctorate in Public Health.

UNDERGRADUATE INSTRUCTION

Instruction of undergraduate students, consisting of a course in biostatistics by Dr. Matthew L. Tayback in the first year, and the courses of lectures in epidemiology and disease control and community medicine in the second and third year, were carried on as in the previous year with the exception of a few changes in lecturers. The third-year program of patient study and field work continued unchanged, as did the Home Report and Disposition Conferences.

STATISTICS

At the beginning of the second semester of the school year, a seminar course in Medical Statistics was initiated for the house officers and staff of the hospital and the graduate students of the Medical School. This course was well received and it is planned to continue this program during the next year. In addition, a consultation service in Medical Statistics was begun by Dr. Bertram Haines who was available on a weekly schedule to all personnel in the Medical School and hospital for discussion and advice with respect to statistical problems. Both the above programs were made possible by the use of Kellogg Foundation funds allocated to the Department of Preventive Medicine and Rehabilitation.

PHYSICAL MEDICINE AND REHABILITATION

During the last year arrangements were made for the establishment of an Adult Evaluation Clinic in the Outpatient Department, and this Clinic will be an integral part of the Rehabilitation Center at the University Hospital. It is anticipated that this Clinic will begin to function early in the next fiscal year.

The Physical Therapy Clinic will soon move to much needed larger quarters in the Outpatient Department and will then be contiguous to the Adult Evaluation Clinic.

MEDICAL CARE CLINIC

Over the last five years there has been a decided increase in the work load of the Medical Care Clinic. The average number of patients registered at this Clinic has gone up over fifty per cent and the current estimated patient population is 6,500. The Medical Care Clinic has been able to handle this increased work load because the Kellogg Foundation fund has provided additional support for work and teaching in this area. Since these funds will expire in another year, it will be necessary to increase the budgeted personnel in this Clinic so that the Clinic can continue to handle this work efficiently.

Dr. Aubrey D. Richardson, Associate in Preventive Medicine, was made Associate Chief of the Medical Care Clinic replacing Dr. Joe L. Stockard.

PUBLICATIONS BY PREVENTIVE MEDICINE STAFF MEMBERS

- WILLIAMS, H.: Summer Lead Poisoning in Children, Maryland M. J. 6:420, July 1957.
 WILLIAMS, H.: Automobile Accidents: A New Field for Research, Maryland M. J. 6:486, August 1957.
 WILLIAMS, H. and NELSON, R. A., et al.: Disaster Strikes Twice. An Abstract of the report "Emergency Medical and Hospital Care in the Arundel Park Fire and the Odenton Train Wreck." CD Technical Report, Federal Civil Defense Administration, September 1957, pg. 9.
 WILLIAMS, H.: The Asian Influenza, Cur. Med. Digest 24:52, October 1957.
 WILLIAMS, H.: Asian Influenza, Maryland M. J. 6:666, October 1957.
 HARDY, J., DAVIS, G. H., VOLMAR, G. S. and WILLIAMS, H.: Prenatal Interviewing Service, Baltimore Health News 34:188, November 1957.
 WILLIAMS, H.: The Asian Influenza, Maryland M. J. 6:732, November 1957.
 WILLIAMS, H.: Prenatal Interviewing Service, Maryland M. J., 6:783, December 1957.
 GORDON, J. and WILLIAMS, H.: Home Safety Activities as Reported in the 1956 Home Safety Inventory, National Safety Council. A Summary of the Baltimore City Health Department Home Safety Program, pp. 25-26.

- WILLIAMS, H., SCHULZE, W. H., SAYERS, B. R., COUCHMAN, C. E. and SACHS, C.: Report on the Harbor Tunnel Air Pollution Study—April 1, 1955—December 31, 1956. Baltimore City Health Department, 1957.
- WILLIAMS, H. and GORDON, J.: Death at the Window Sill. *The Baltimore Afro-American*, May 13, 1958.
- WILLIAMS, H.: The Second National Quarantine and Sanitary Convention—Baltimore April 29-May 1, 1958. *Baltimore Health News*, June-July 1958, Vol. 35, Nos. 6-7, pp. 41-45.
- WILLIAMS, H., TAYBACK, M. and FARBER, R. E.: Recent Poliomyelitis Control Efforts in Baltimore. *Baltimore Health News*, August 1958, Vol. 35, No. 8, p. 60.
- MAHONEY, F. L., WOOD, O. H. and BARTHEL, D. W.: Rehabilitation of Chronically Ill Patients: The Influence of Complications on the Final Goal, *South. Med. J.* 51, May 1958.

DEPARTMENT OF PSYCHIATRY

We are pleased to report that during the past year the functions of the Psychiatric Institute and its relationships with the Medical School and the University Hospital have been clarified. Although in many respects the program of the Psychiatric Institute is similar to that of the other departments of the Medical School, in its community work, in its relations with the State Department of Mental Hygiene, and in the wide scope of its activities, the Institute program is much more varied and requires a somewhat different administrative set-up and organization. We are planning to open up our Children's Inpatient unit in September, 1959, and hope that arrangements will soon be made so that we can have inpatients on the entire fourth floor of the Psychiatric Institute. I am grateful for the time and energy spent by our colleagues of the Medical School and by the officers of the administration in working toward this new administrative arrangement enabling us to continue with our program.

The past year has been a busy one. Expansion has occurred in our inpatient and outpatient services and in our teaching program. At the same time our staff has learned to function more smoothly and in a much more integrated way. The inpatient service has continued under the direction of Dr. Raymond Band and has used its facilities to the maximum. Bed occupancy has been well over 90% throughout the year. The outpatient services, including the Child Guidance Clinics, have had more patients, and in both Inpatient and Outpatient Departments we have been able to carry out more intensive psychotherapy. A high percentage of adolescent patients have been treated in our inpatient services. This experience has given us a broader understanding of the emotional problems of the adolescent, and has given us added insight into the importance of the social structure of the ward in treatment. We are gradually introducing group methods of psychotherapy for both inpatients and outpatients. We are learning to use ataractic drugs with greater precision. The Nursing Service, the Department of Psychiatric Social Service, and the Department of Occupational and Recreational Therapy have expanded their service function and have been integrated more closely in our therapeutic program.

There have been interesting developments in our teaching program, especially in our undergraduate teaching. In this area I believe we are gradually learning how to deal with the difficulties involved in conveying a humanistic and comprehensive approach to the patient, while applying scientific concepts to the work of the student and of the doctor. During the past year, most of our assistant residents have been active in our teaching program; we have been gratified at their interest and enthusiasm. Several members of the Department have been invited, in this country and abroad, to describe and discuss our teaching methods.

During the past year we can see an increase in the research interests that we

have been able to develop in many of our students and assistant residents. In addition, there has been a healthy interchange of research ideas between members of the Institute and members of the Mental Hygiene Department of the State of Maryland. The work of Dr. Robert Grenell and Dr. Enoch Callaway in Biochemistry, Neurophysiology, and autonomic nervous system Physiology is being tied in more closely with the clinical problems of psychiatric illness. Research continues on the ataractic drugs and on the chemical agents producing psychotic-like states. With the help of Dr. Harvey Robinson, Dr. Benjamin Pope, Dr. Edmund Howe, and Dr. Silverstein, substantial progress has been made in our pilot study of the assessment of teaching. The work of Dr. John Reid, Professor of Philosophy in Psychiatry, is receiving more and more recognition by psychiatrists in this country as well as abroad. The work of Mr. L. Whiting Farinholt, Professor of Law in Psychiatry, has opened up new areas in the field of Law and Psychiatry for joint investigation.

We are pleased to report the promotion of Dr. Robert Grenell to Professor of Psychiatric Research, of Dr. Enoch Callaway to Associate Professor of Psychiatry, of Dr. Harvey Robinson to Associate Professor in Medical Psychology, of Dr. Benjamin Pope to Associate Professor in Medical Psychology, and of Dr. Charles Bagley, III, to Assistant Professor in Psychiatry. During the past year, Dr. Eugene Brody, Professor of Psychiatry, has been of inestimable value in working out our residency training program. He has been appointed consultant to the Crownsville State Hospital and the Veterans Hospital at Perry Point. We regret the resignation of Dr. George Longley, Instructor in Psychiatry, and of Dr. Anthony Hordern, Instructor in Psychiatry.

This year we have been able to appoint nine medical students as Fellows in research and clinical work. These Fellowships have been supported by the U. S. Public Health Service by a grant from the Smith, Kline and French Company and the American Psychiatric Association.

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Trainees:

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 DR. ERNEST B. KATZ
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 DR. EARL COHEN
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INPATIENT PROGRAM

During the past year approximately 400 patients were admitted with an average monthly admission rate of 34 patients. The average census was over 90%, which was well above the percentage occupancy of the previous year. The total number of patient bed days was 20,140. The diagnoses of the patients admitted from July 1, 1957, through May 31, 1958, are given in Table 1. During the past year there was a marked increase in the number of adolescent patients admitted to the Inpatient Department. This was primarily due to the increased interest in this area due to the Adolescent Clinic. Intensive psychotherapy still remains the treatment of choice; many patients received psychotherapy combined with shock treatment or drug treatment. During the past year no insulin therapy was used. There has been a marked

increase in the number of research studies undertaken on the inpatient wards. They have ranged from studies of the problems of psychosomatic patients by Dr. Raber to studies of autonomic functioning in psychotic patients, being carried on by Drs. Callaway and Band.

The work on Ward 3G has continued under the direction of Dr. Jack Raber. The number of psychosomatic patients admitted and studied has increased and more intensive psychiatric work has been done with patients in this area.

The work on the inpatient wards has been strongly supported by the Departments of Nursing, Occupational and Recreational Therapy, Social Service, and Psychology. The complete reports of these departments are filed in the Director's office.

TABLE I

DIAGNOSES OF PATIENTS ADMITTED TO INPATIENT DEPARTMENT

<i>Psychotic Reactions</i>		<i>Personality Disorders</i>	
Schizophrenic Reactions	75	Emotionally Unstable Personality	6
Psychotic Depressive Reaction	14	Inadequate Personality	1
Involutional Psychotic Reaction	25	Sociopathic Personality	24
Manic Depressive Psychosis	17	Cyclothymic Personality	1
Senile Psychosis	1	Paranoid Personality	1
		Passive-Aggressive Personality	4
<i>Neurotic Reactions</i>		<i>Brain Syndromes</i>	
Anxiety Reaction	28	Acute (due to various causes)	21
Depressive Reaction	52	Chronic	22
Conversion Reaction	17	<i>Psychophysiologic Reaction of</i>	
Obsessive Compulsive Reaction	1	<i>Various Types</i>	12
Dissociative Reaction	7	<i>Others</i>	18
Adjustment Reaction of Adolescence	4	<i>Patients Undiagnosed Because of</i>	
		<i>Brief Stay</i>	7

OUTPATIENT CLINICS OF THE PSYCHIATRIC INSTITUTE

Adult Outpatient Psychiatric Clinics

As in preceding years, the clinics are under the general supervision of Dr. Klaus W. Berblinger. Dr. Virginia Huffer acts as an Associate Director, Dr. Charles Bagley, III, heads the Clinic for Adolescents, Dr. Robert Trattner was in charge of the Comprehensive Clinic, and Dr. Isadore Tuerk heads the Clinic for Alcoholic Patients. Additional activities are seen in the work of these clinics with specific social agencies, who sent selected cases for treatment. There are many liaison contacts which are educational and cooperative in character, such as Dr. Roger Waterman's regular meetings with probation officers of the local courts. The clinics also absorb part of the psychiatric services afforded medical students, under Dr. William Magruder. At present, plans are in progress to expand and to coordinate our facilities for students with psychiatric difficulties with the Student Health Service.

The administrative organization of the Adult Outpatient Services has remained the same. The over-all professional supervision is assigned to Dr. Berblinger. On the senior staff level, one associate, one instructor and three fellows do teaching and supervision. The resident staff consists of one chief resident and two to four assistant

residents assigned in rotation. This year we have been able to have the services of a full-time social worker and a psychologist. In addition to this staff, 20 to 25 part-time instructors, fellows and residents participated in clinic work and in teaching and research. During the summer months, two first-year and three second-year medical students worked as externs under fellowship grants.

During the past year there has been a marked increase in the number of patients seen and in the number of treatment hours (see Table II).

TABLE II
COMPARISON OF NEW PATIENTS AND TREATMENT HOURS—1954-1957

<i>Year</i>	<i>New Patients</i>	<i>Treatment Hours</i>
1954	879	4,454
1955	1,116	4,580
1956	1,098	5,614
1957	1,478	6,408

In addition to these figures the Comprehensive Clinic reports a total of 3,590 patient hours, with 768 individual patients for the year 1957.

The number of subclinics has remained about the same. We have added a "Rapid Diagnostic Service," have expanded the Clinic for Adolescents and have increased the number of patients seen in group therapy. At the time of this report, the following clinics are active:

1. Adult Psychiatric Clinic
2. Brief Contact Clinic
3. Wednesday Evening Clinic
4. Clinic for Personality Disorders
5. Clinic for Alcoholic Patients
6. Adolescent Clinic
7. Comprehensive Clinic

In the Adult Psychiatric Clinic 301 new patients were seen, an average of six new patients each week, and about 120 patients were treated each week in individual psychotherapy. In the Brief Contact Clinic two new patients were seen each week. The Wednesday Evening Clinic was attended by psychiatric patients who were unable to keep daytime appointments and was staffed by State Hospital trainees under the supervision of the clinic Director. Approximately 10 patients were seen in this clinic each week. In the clinic for alcoholic patients 26 new patients were seen; there were 111 individual treatment hours and 438 group treatment hours.

In the Adolescent Clinic approximately 150 new patients were seen, referred from a wide variety of sources including the Departments of Education of Baltimore City, of Baltimore and Anne Arundel Counties, the Juvenile Courts of Baltimore City, Baltimore County, Anne Arundel County, Carroll County, Howard County, and Harford County, the Welfare Departments of Baltimore City, Anne Arundel County, Frederick County, Somerset County, Baltimore County and Harford County. Several private social agencies have also used the services of this clinic. The Comprehensive Clinic has seen approximately 15 patients and has offered 49 treatment hours each week.

The emergency service has expanded considerably and this service, which during daytime hours is housed in the Treatment Room of the Institute and at night in the Emergency Room of the University Hospital, fulfills a rather crucial function. Since the Greater Baltimore area has no receiving unit for psychiatric patients, an unusually large number of acutely disturbed patients are sent by individual agencies, physicians in the community at large, by courts and police precincts to our clinic for immediate disposition. Most frequently the ultimate disposition will be commitment to one of the State Hospitals. However, before this is effected the patient receives a full-scale diagnostic evaluation; contact with relatives has to be made and often the clinic has to arrange for transportation to the State Hospital. Apparently the availability of this service is now more generally recognized in this community. In 1956, 761 emergency patients were seen. By 1957, this number had increased to 908. This type of service requires the attention of more than one professional person; it usually involves evaluation by a student or assistant resident, supervision by an instructor and dispositional arrangements or further inquiry through the social worker and the clinic nurse, so that an average of about three hours is spent with each patient. In spite of the extent to which this service occupies time and personnel, it is considered to be not only a most necessary community responsibility, but constitutes a unique opportunity for teaching and research.

THE CHILD GUIDANCE CLINIC

Dr. Joseph S. Bierman has been the Acting Director of the Child Guidance Clinic during the past year; Miss Bonnie Lee Strain, chief psychiatric social worker, and two assistant residents worked full-time in the clinic. Dr. Carola Guttmacher, Dr. Frederick Phillips, and Dr. Pearl Scholtz have been teaching and carrying out supervision. The work in clinical psychology has been the responsibility of Dr. Jacob Stein and Mr. Stanley Joseph. The Child Guidance Clinic has continued as an active member of the Association of Psychiatric Clinics for Children.

During the past year, there were approximately 230 referrals to the clinic. The patients have been referred directly from their parents, from physicians, school and social agencies in Baltimore and Maryland. Most referrals were followed by a diagnostic study of the child and the mother, after which decisions were made by the clinic staff as to the treatment. In an attempt to increase the effectiveness of the clinic, mothers were seen by Miss Strain at initial interviews in groups of six.

The clinic provided a consultative diagnostic service for children and young adolescents hospitalized in the Psychiatric Institute, as well as service for psychiatric emergencies in children coming to the accident room of the University Hospital. The clinic also provided a diagnostic service for the Juvenile Courts of Baltimore City. Intensive individual long-term treatment was offered to children, mothers and sometimes to fathers. This still remains the preferred type of treatment. During the past year two parallel therapy groups of four mothers and four children have been in process. Plans are being made to expand the groups.

The total number of visits to the Clinic from July 1957 through May 1958 was 2,072. This included 1,100 children and 972 adult visits. Forty-five psychological examinations were given during this time.

The clinic has continued its consultation service to the Department of Public Welfare, Jewish Family and Children's Service, to the Division of Special Services of the Board of Education, and, in addition, to the Kernan Hospital School for Crippled Children. The clinic has also participated in a busy teaching program in the past year. In addition to the training of psychiatric residents, various senior staff members have utilized the clinic to enlarge their psychiatric experience in the treatment of children. Groups of medical students, both third and fourth year, rotate through the clinic and have the opportunity of observing demonstrations and of learning about the problems of child psychiatry. During the past year, three residents of the Springfield State Hospital, three from the Spring Grove State Hospital and two from the Sheppard and Enoch Pratt Hospital have been on the part-time staff. The clinic has served as a field placement agency for social service students from Howard University and from the Catholic University of America. McCoy College of the Johns Hopkins University and the Catholic University of America have observed play interviews as part of their training at the clinic. In addition, counselors of the Baltimore Public Schools attended a session with the chief psychiatric social worker.

Great importance is attached to the contact which the clinic has with other community agencies. These contacts consist primarily of working with other agencies who refer patients, and the setting up of diagnostic and treatment conferences for children who are known to various social agencies. The staff has participated in the several educational ventures for lay groups. The research activities of the clinic will be discussed below. We are hoping to coordinate the activities of the Child Guidance Clinic with those of Ward 4G, our new inpatient ward for disturbed children, during the current year.

MENTAL HYGIENE CLINIC FOR CHILDREN

This clinic is run jointly by the Departments of Pediatrics and Psychiatry. Its quarters are in the pediatric outpatient department. The clinic has continued its work in offering its service to the Department of Pediatrics, to pediatricians and to the community. We are grateful to the Mental Hygiene Society of Greater Baltimore for the sum of \$20,000 to support this clinic. During the past year, Dr. Kurt Glaser has been the acting director. The staff consisted of Miss Mary Anne McDowall, full-time social worker, Miss Nadja Pats, who spends part of her time in the clinic, and a full-time pediatrician, an assistant resident in psychiatry, and a half-time resident in pediatrics. The psychological work has been done by Dr. Jacob Stein and Mr. Stanley Josephs. Dr. Frederick Phillips and Dr. Carola Guttmacher have assisted in supervision.

During the past year, 160 patients have been referred to this clinic; well over 100 of these have come from the pediatric outpatient department and from private pediatricians in the community. The remaining patients have been referred by the pediatric inpatient department and other clinics of the hospital. The total office visits have been 1,288. One hundred fifty-six patients have been seen and treated. There has been a large active consultant service on the pediatric ward. Dr. Glaser has visited on the pediatric ward as a pediatrician, and in this way has been able to directly teach the emotional problems of children to pediatric students and residents.

During the past year, Junior and Senior medical students received instruction from the clinic staff during their service on the pediatric wards and two Senior medical students spent an elective month in the clinic. The teaching activities of the clinic included work with the pediatric residents and members of the pediatric department and the pediatric house staff by means of staff and case presentations. It has been possible through administrative changes to eliminate the initial waiting period, and patients applying to the clinic are now seen almost at once for initial interview or diagnostic study or even for brief periods of treatment.

TEACHING PROGRAM

Teaching is one of the major functions of the Psychiatric Institute. The end product we wish to achieve is that of an imaginative, well-trained physician—a human being, with human and scientific values—inquisitive, critical, with the recognition of his responsibility as a physician. The medical school provides the setting and the atmosphere where students can grow and develop and utilize their resources to the maximum in the study and practice of medicine. In our teaching of medical students and in the graduate training of physicians, we have been exploring and testing out methods involving group discussion, methods designed for training in problem solving and in critical thinking. The core of the curriculum is the experience of observing and treating patients in a setting in which the student and the graduate physician are encouraged to assume as much responsibility as possible. Experience under supervision—followed by a discussion and evaluation of this experience—this is the backbone of the method. The role of the instructor is to review with the student his clinical experience and to guide and stimulate rather than to lead.

Our undergraduate teaching is planned to help students learn what doctors should know about personality functioning and about Psychiatry with the opportunity for clinical experience under supervision as soon as possible. We wish to have the student acquire the broad panorama and then spend the rest of his life, as we spend the rest of our lives, filling in the details and further broadening his horizon. Our graduate training is designed above all to train sound psychiatrists. The training of investigators and teachers is part of the program, and we would offer every graduate physician experience and training in these areas. The graduate training program includes training not only in the conventional clinical areas. Opportunities are offered for work in our various clinics, in the student counseling center at College Park and training in community psychiatry.

During the past year there have been changes in our undergraduate teaching program, especially in the first-year course. Through the help of Dr. Jean Coyle we were able to better coordinate the work of the first year students in seeing patients and in following their progress. Many of our assistant residents have been instructors for small groups of two or three students as well as for large sections of the class. The interest and availability of these instructors enabled our students to study their patients intensively and to have their reports supervised more precisely than has heretofore been possible. It is our impression that the closer contact between the students and the assistant residents did much to convey to the students an appreciation of the importance of psychological and sociological factors in the lives of the patients.

During the third year the students spent a three-week period of clerkship at the Spring Grove and Springfield State Hospitals. We are planning during the current year to have the third-year students spend this clerkship at the Psychiatric Institute under closer supervision of our senior and resident staff. By having the students in the Institute during the third year it may be possible to cover some of the topics which have heretofore been taught in the fourth year. In this way our senior students will spend more time directly in working with patients. The Fellowship program for medical students has been expanded and we have been able to offer supervision in treatment on the wards and clinics.

Since our first-year program has been of much interest to the Department and to others, I should like briefly to describe the course, the philosophy of teaching and the methods we have been using.

The first-year course meets from 11:15 to 1:00 on Saturday morning throughout the first and second semesters. In addition, in the second semester the class meets in two sections, each section meeting twice a week, from 1:00 to 2:00 p.m. Each student receives 90 hours of instruction. This course is primarily devoted to a consideration of human relations as applied to the practice of medicine. The topics dealt with include personality development, reactions to stress, situational and social factors in the disease process, in treatment and prevention. Consideration is given to problems of ethics, values, and scientific methodology, as they apply to the work of the physician. The emphasis is upon observing, understanding and evaluating the personal and social factors in disease, in treatment and prevention.

The course is patient-oriented. At every class meeting, a patient with a common medical or surgical illness is interviewed to illustrate methods of interviewing, and methods of defining and developing a useful therapeutic relationship. The interview with the patient is the basic raw data presented as a common experience for the class from which inferences are made in as many areas as possible. The patients, when possible, are those being treated by the fourth-year students. In these instances the role of the fourth-year student is that of a resource person for the class. An attempt is made to integrate all the observations and areas of inquiry and gradually to build up a broad awareness of the many areas of importance in understanding and treating patients. These include the biochemical, structural, physiological, psychological, interpersonal and social. These areas are considered in every patient seen, and similarities and differences are discussed from patient to patient. The material observed in each patient forms the jumping-off ground for class discussion. At appropriate times the material is summarized and organized.

The methods of instruction are based on two broad hypotheses: 1) most meaningful teaching occurs when the student is involved in an experience of interest to him; 2) learning occurs most readily when the student has an experience, scrutinizes the experience, draws inferences from the experience, and, if possible, generalizes about the experience. For this reason the emphasis is on observation and participation in a brief interview of a patient. Students are encouraged to describe what they see and hear. The presentation of a patient, from 15 to 30 minutes, is used in every session to stimulate the student to observe and become sensitized to the gross and subtle interactions between the patient and the doctor, the vocal inflections of the patient, the sudden switches of topic, the patient's reaction to the behavior

of the doctor and the subtle meanings of the patient's verbal and non-verbal behavior. After the patient has left, the class discusses their observations, and the instructor focuses the interest on making sense out of them. Often the students are able to see the appropriate inferences and even arrive at a theory. Topics are generally left open and alive. The instructor avoids tying up or clinching a discussion in order to keep it alive for subsequent discussion. The content areas include the substantive content of psychiatry and cover the topics we consider goals of basic psychiatric training. They include among others, information on interaction, the doctor-patient relationship, psychodynamics, psychotherapy, psychoanalytic therapy, personality development and attitudes and values of the doctor with emphasis on the doctor's performance.

The method of teaching is primarily that of discussion. Each session begins by asking the students what they would like to talk about. The students are encouraged to bring up any topic they have in mind. When a topic of interest is brought up, the instructor attempts to have the class focus on the topic and elaborate it as much as possible. At times the same point is brought up during the same session by several students. This is encouraged. If the discussion takes the form of a question, the question is usually not answered by the instructor but turned back to the class: "What do you think about this?" "Will anyone try to help answer the question?" When the opportunity to focus the question presents itself, the instructor prefers to focus it along the lines of the patient's problems, and of the students' observations of the patient while he was in the classroom. On many occasions the discussion is prolonged, and the instructor delays the clarification of a point in order to stimulate the students to clarify the point themselves by more active intergroup discussion. In the beginning of the course, little attention is paid to the students' reading in order to emphasize the importance of direct observation and the drawing of inferences from these observations as they are made in class. Every issue is presented as a problem for solving. As the course progresses, reading material is suggested primarily from the current literature. Observations on this course by the team of workers have been made as part of our investigations in the teaching process.

The residency training program has continued with more emphasis on individual and group supervision. The program is gradually becoming better coordinated in the past year due to the efforts of Dr. Eugene Brody. In addition to conducting a seminar, he was responsible for the overall supervision of the residency training program.

RELATIONS WITH OTHER ORGANIZATIONS

National and Local Professional Organizations

During the past year several members of our staff have held positions of influence in national and professional societies as well as in state and local organizations. These activities are reflected in part in the list of speeches and addresses listed at the end of this report.

Dr. Eugene Brody is a member of the Committee on Relations with Psychology of the American Psychiatric Association and of the Committee on Psychotherapy of the Group for the Advancement of Psychiatry. In December, 1957, he was an examiner for the American Board of Psychiatry and Neurology at its annual meeting in New York City. He was an invited speaker at the symposium on Psycho-

pathology with Schizophrenic Patients, sponsored by the Southeast Louisiana State Hospital in Mandeville, Louisiana. During the past year, he has become an associate member of the New York Psychoanalytic Society and a member of the Baltimore Psychoanalytic Institute. He has been appointed consultant in Psychiatry at the United States Veterans Hospital at Perry Point and the Crownsville State Hospital of the State Department of Mental Hygiene.

Dr. Charles Bagley was appointed consultant to the Rosewood Training School and Hospital in September of this year and has recently been appointed as a member of the Advisory Committee to the Superintendent of Rosewood Training School. He was elected President of the Maryland Association for Mental Health during the past year, and is a member of the Board of Directors of the Metropolitan Baltimore Mental Health Association. Dr. Klaus Berblinger has been a consultant at the Springfield State Hospital and at the Mount Wilson State Hospital. Dr. Enoch Callaway has become a member of the Committee on Psychopathology of the Group for the Advancement of Psychiatry. He was the winner of the first annual research prize given by the Maryland Association of Private Practicing Psychiatrists.

Professor Leroy Whiting Farinholt has been a director of the Maryland Medical-Legal Institute. He has become a member of the Adhoc Committee on the Effect of Strain and Trauma on the Heart and Great Vessels, and of the Heart and Industry Committee of the American Heart Association. He has recently been appointed a member of the National Advisory Council for the Law-Medicine Research Institute of Boston University. Dr. Manfred Guttmacher has been a member of the Committee on the Legal Aspects of Psychiatry of the American Psychiatric Association, and of the Committee of Psychiatry and Law of the Group for the Advancement of Psychiatry. During the past year, he received the distinction of being named the Isaac Ray Lecturer of the American Psychiatric Association.

Dr. Robert Grenell participated in the Ninth International Congress for Cell Biology at St. Andrews, Scotland, last September. He was an invited member of the Macy Foundation Conference on Neuropharmacology and an invited discussant at a meeting of The Brain Research Foundation in New York City. During the past year he has become a member of the Biophysical Society of the Society of Biological Psychiatrists. He has continued his work as Associate Editor of the *Journal of Nervous and Mental Disease*.

Dr. Kurt Glaser has been on the Public Education Committee of the Heart Association of Maryland. He has been a member of the subcommittee on Medical Services and Facilities for Handicapped Children of Maryland, a subcommittee of the committee on Medical Care of the Maryland State Planning Commission. He has been a member of the committee on Health and Delinquency of the Maryland Commission for the Prevention and Treatment of Juvenile Delinquents and a member of the subcommittee on Classes for Parents of Infants of the Baltimore Parents Education Council. He has been chairman of the committee on Juvenile Delinquency of the Maryland Chapter of the American Academy of Pediatrics. Dr. E. T. Lisansky has become a Fellow of the American College of Physicians and has been guest instructor of the Baltimore Psychoanalytic Institute.

Dr. Leopold May has been treasurer of the Baltimore-Washington Spectroscopy Society and is on the editorial committee of The Federation of Spectroscopic Socie-

ties. He is also the editorial representative of Applied Spectroscopy. He is chairman of the Division of Analytic Chemistry and Chemical Spectroscopy of the Maryland Section of the American Chemical Society, and the chairman of the committee on Public Relations of the Maryland Section of the American Chemical Society. He participated in the International Congress for Cell Biology, St. Andrews, Scotland.

Dr. John Reid was invited to discuss the Academic Lecture of Dr. Edward Teller at the annual meeting of the American Psychiatric Association at San Francisco in May. Dr. Harvey Robinson has been promoted to Associate Professor of Medical Psychology and is the Managing Editor of the *Journal of Nervous and Mental Disease*.

Mrs. Imogene Young has been elected to the office of the Delegate Assembly Representative of the Psychiatric Social Work Section of the National Association of Social Workers to serve for the term 1958-60. She has continued as a member of the National Committee on Participation in Medical Education of the National Association of Social Workers, and is a member of two subcommittees of this parent committee: The Subcommittee to Study Content Taught and the Subcommittee on Regional Organization, of which she is Chairman and serves as National Regional Coordinator. Mrs. Young has continued as a member of the Committee on the Mentally Ill of the Baltimore Council of Social Agencies, and is a member of one of its subcommittees on the Education of the Police Force. She is acting Chairman of the Regional Committee on Participation in Medical Education of the National Association of Social Workers. She has been elected Chairman of the Psychiatric Social Work Section of the Baltimore Chapter, National Association of Social Workers. She is also a member of the committee on the History of Social Welfare. At the invitation of the Office of the Surgeon General of the Army, Mrs. Young is preparing a Chapter on Psychiatric Social Work for inclusion in a history of World War II.

Mrs. Sybil Fainberg continues to serve as a member of the program committee of the Baltimore Chapter of the Psychiatric Social Work Section, National Association of Social Workers. Mrs. Nadja Pats also served as a member of the program committee of this group. Miss Marta Korwin is a member of the Public Relations Committee of the Baltimore Chapter of the National Association of Social Workers and continues as a member of the Regional Committee on Participation in Medical Education, National Association of Social Workers. Miss Mary Anne McDowall is a member of the committee on "Problems of Emotionally Disturbed Children" of the Baltimore Council of Social Agencies representing the Psychiatric Institute.

Dr. Finesinger has continued as a member of the National Research Council Committee on Psychiatry, the National Research Council Committee on Veterans Affairs, a member of the Research Committee on the National Association of Mental Health and Editor-in-chief of the *Journal of Nervous and Mental Disease*. Last year he was invited to read a paper on "Teaching Psychotherapy" for the Psychiatric Section of the Royal College of Medicine in London. He also participated in the Psychiatric Congress in Zurich, Switzerland, in September. As Chairman of the Committee of Mental Hygiene of the Medical and Chirurgical Faculty, he participated in the annual chairmen's meeting in Chicago in November. He was invited to address the Chicago Medical Society at its 1958 annual meeting.

University Hospital

During the current year 156 inpatients were seen in formal consultation. Most of these were from the Departments of Medicine and Surgery. In the accident room 205 patients were seen in consultation. In the emergency treatment room 703 patients were seen.

We have been pleased that consultation requests have become concerned with the problems of treatment rather than with problems of the disposition of patients. Several of our residents have been working regularly at the Medical Outpatient Department as consultants. Our consultation service with the rest of the hospital leaves much to be desired, yet we feel that we are making headway with this one most difficult aspect of our work. As a result of improved consultation service with the department of medicine more patients have been admitted to Ward 3G from the medical service. Dr. E. T. Lisansky and Dr. Julian Reed of our department have continued to visit on the medical service. Dr. Nathan Schnaper has continued his work with the Department of Surgery and holds a regular Surgical-Psychiatric Conference preceding the surgical grand rounds. This meeting is usually attended by students. The patients on the surgical service are presented and discussed. The emphasis is on the management of the patient. Dr. Schnaper is also the psychiatric consultant at the Grand Rounds of the Department of Surgery. We feel that this service has been worthwhile and we hope to find ways and means of expanding our work in this area.

Our active collaboration in the Department of Pediatrics with Dr. J. Edmund Bradley and his staff continues. The activities of the Mental Hygiene Society Clinic for Children have been described in the previous section. Our study of the emotional factors in children with poliomyelitis, in which Dr. Bradley has collaborated, has been completed and the material is now being written up for publication. We are looking forward to closer collaboration with the Department of Pediatrics, especially when our new Inpatient Department for Children is opened in 1959.

Our joint seminar with the Department of Preventive Medicine has continued. This seminar is held for the fourth-year students during their clerkship in Psychiatry.

Department of Psychology

During the current year, Dr. Marion Mathews has been consultant to the Counseling Center of the Department of Psychology at College Park. As part of her work, she deals with psychiatric emergencies arising at College Park. Her major efforts are in the counseling center where she spends time in supervision of treatment and counseling. In the Residency Training Program we plan to include work at the Student Health Service at College Park.

School of Law

Our program with the School of Law has continued under the direction of Professor L. Whiting Farinholt, Jr. Several of our staff members, including Dr. Lisansky, Dr. Guttmacher, and Dr. Finesinger, participated in an elective course to Senior students. Groups of law students visited the Psychiatric Institute to observe the activities of our Outpatient Department and to observe and study methods of interviewing and relating to psychiatric patients. Several students of the law school

attended our first-year course in psychiatry; we hope that many more students of the law school will become interested in our teaching program.

Professor Farinholt has been very active relating law and medicine, with a special interest in psychiatry. During the past year, he has been chairman of the committee on law and medicine of the Association of American Law Schools and chairman of the Committee on Mental Disorder and Criminal Responsibility at the American Bar Association Regional Meeting. He has been an active member of the Committee on Hospitalization of the Mentally Ill of the Baltimore Council of Social Agencies, of the Committee to Study the Insanity Laws of Maryland. He has been a member of two committees of the American Heart Association studying the legal problems of patients with heart disease. Most recently he has been appointed as a member of the National Advisory Council of the Law, Medicine Research Institute of the Boston University.

In collaboration with the committee on continuing the legal education of the members of the Bar Association of Baltimore City, the School of Law and the Psychiatric Institute held a panel discussion on its Defective Delinquent Law on January 30, 1958. The panel participants were the Hon. Jerome Robinson, member of the House of Delegates and of the Advisory Board for Defective Delinquents, Dr. Harold Boslow, Patuxent Institute, Dr. Manfred Guttmacher, Chief Medical Officer of the Supreme Bench of Baltimore City, and the Hon. James K. Cullen, Associate Judge of the Supreme Bench of Baltimore City. Professor Farinholt was moderator for this session. In collaboration with the postgraduate committee for the School of Medicine, the School of Law presented an Institute for Lawyers, organized by Professor Farinholt, at which Dr. Lisansky of our Department discussed the emotional components of heart disease.

School of Nursing

During the past year, Drs. Callaway and Pope, Mr. Roman Nagorka and Miss Margarite Termini, Associate Director of Nursing in the Psychiatric Institute, participated in the undergraduate teaching program of the School of Nursing. Well over 149 undergraduate nurses received instruction and training in the Psychiatric Institute. Drs. Finesinger, Callaway, Grenell, Klee and Reid took part in the graduate seminar for nurses working toward their Master's degree under the direction of Miss Theresa Fernandez, Associate Professor of Psychiatric Nursing. Miss Termini gave a course in administration which consisted of 30 hours of theory and 175 hours of clinical experience. Other members of our nursing group at the Institute took part in both the undergraduate and graduate teaching programs by orienting new groups of students and offering guidance and assistance whenever necessary. Our staff has felt that the graduate program of the School of Nursing has been attracting nurses of high calibre. Five graduate students have selected theses and have collected their data for these theses in the Psychiatric Institute. We plan for the coming year to have the School of Nursing become more involved in our undergraduate and graduate teaching programs.

Supreme Bench of Baltimore City

Dr. Roger Waterman has held weekly meetings with some of the members of the Probation Department of the Supreme Bench of Baltimore City. The group has

consisted of 10-15 Probation Officers from both the Domestic Relations and Criminal Division of the Probation Department.

The purpose of this seminar is to study the interpersonal relationships between the probation officer and probationer, the basic hypothesis being that this interaction is the major tool at the probation officer's disposal in influencing his client. The whole concept of probation is a recent one in legal history and this is a field of growing importance with the shift of emphasis from punitive to rehabilitative handling of offenders. Certain crucial aspects of probation need further study. The current training of probation officers could well be expanded to include the clarification of the role of the probation officer, training in skills of counseling and guidance procedures in interpersonal relationships and in awareness of the importance of feeling. We have initiated this project in the hope that the group's sessions could provide suitable training for this work, and we hope to explore the possibilities.

Dr. Waterman reports that the response of the probation officers to the weekly meetings has been of real use and value to them. We have achieved considerable success in forming a cohesive group and are at the point where we can more effectively focus on interpersonal interactions in their work. Some of the difficulties have had to do with difficulties in communication between the group members and the doctors. We have found on the whole that probation officers are highly "dedicated" to their work, much involved feeling-wise with their client, sensitive to the possibilities of criticism about their work.

Department of Public Health

Our program with the State Department of Public Health has continued in two areas. Miss Florence M. Burnett, Consultant in Mental Health, has been in charge of the joint program of in-service training in Mental Health for Public Health Nurses. During the present year, six training programs were held at the Psychiatric Institute, with a total of 23 public health nurses participating from seven counties. Most of the Public Health nurses came from Baltimore County; there was an increase in participants from both Prince George's and Montgomery Counties. In addition, 54 other nurses participated from the Mount Wilson State Hospital, Teachers College of New York, and the Yale School of Public Health. The clinical training for these nurses was done on Ward 3G; Mr. Philip Vail and Dr. Julian Reed of the Institute were supervisors in this program.

Miss Burnett has presented a cumulative report of this in-service training program from 1952 to 1958. During this period 40 groups took part in the program. In addition to the public health nurses, a total of 54 other nurses have participated. These represent graduate nurse students from the Catholic University, Teachers College, School of Hygiene, The Johns Hopkins School of Hygiene, the Harvard School of Public Health, several groups of instructive visiting nurses associations. In addition to bringing public health nurses into the Institute, over 25 nurses of University Hospital, both service and faculty personnel, participated.

The State Department of Public Health has participated and supported our alcohol study. This program has proceeded in two phases, one being the clinical study of alcoholic patients before and after the administration of glutamine. This program has been carried out by Drs. Tuerk, Hordern, Berblinger, and Bare. These patients were studied clinically by means of psychological tests before and after

the administration of glutamine in order to determine the nature of the effect of glutamine on their behavior. The other phase of this program, namely the effect of glutamine on alcohol consumption, has been carried out in the laboratory under the direction of Dr. Robert Grenell. He and his group are studying the effects of alcohol and related substances on cerebral function in animals. The clinical aspect of the problem of alcoholism has been under the direction of Dr. Klaus Berblinger, who during the past year has continued as consultant to the tuberculosis hospital in Mount Wilson. He has continued a series of seminars on the problems of patients with tuberculosis and on the emotional factors in the treatment and management of these patients.

State Department of Mental Hygiene

Dr. Finesinger has continued as secretary to the Advisory Board of the Mental Hygiene Department and has had many conferences with Dr. Clifton Perkins, Commissioner of Mental Hygiene, in reference to our joint programs. We are continuing our teaching programs at the Spring Grove State Hospital and the Springfield State Hospital and are planning to extend our teaching programs to the Crownsville State Hospital. During the past year we have been trying to work out a summer program for medical students with the various state hospitals. Many members of the State Department of Mental Hygiene hold appointments on our staff. Among them are Dr. George Sutherland, Dr. Isadore Tuerk, Superintendent of the Spring Grove State Hospital, Dr. Irene Hitchman, Clinical Director of the Springfield State Hospital, Dr. Charles Ward, Superintendent of Crownsville State Hospital, and Dr. George Longley who is in charge of the education program of the Spring Grove State Hospital. Several members of our own staff are directly involved in the clinical teaching and research programs of the state hospitals. Dr. Eugene Brody has been visiting at Crownsville State Hospital, has been organizing several projects in the area, along the lines of his interest in social psychiatry. Dr. Klaus Berblinger, Associate Professor of Psychiatry, and Dr. Virginia Huffer, Associate in Psychiatry, have been visiting regularly at the Springfield State Hospital and at the Spring Grove State Hospital.

During the past year our department has actively participated in the program of the Rosewood Training School and Hospital. Dr. Finesinger has been Chief Consultant at Rosewood and has helped organize the staff committee advisory to Dr. Medairy, Superintendent of Rosewood. Dr. Charles Bagley has been a consultant to the Rosewood State Hospital and Training School and has been an appointed member of the Advisory Committee. Dr. Kurt Glaser is at present a consultant to Rosewood. Dr. Joseph J. Reidy, who was in charge of the Children's Psychiatric Program for the State Department of Mental Health, is the director of the new unit at Rosewood for emotionally disturbed children. He has been appointed Associate in Psychiatry. There has been much more active collaboration in the research program of the State Department of Mental Hygiene. Dr. Enoch Callaway and Dr. Robert Grenell have been actively involved with Dr. Albert Kurland and with Dr. Irene Hitchman in their respective research programs. During the past year, four meetings have been held of the research club organized by Dr. Finesinger for the discussion of research projects in the state hospitals. These were dinner meetings at which the hospital personnel presented their on-going and projected research

programs for discussion. Dr. Callaway has been instrumental in organizing these meetings. Dr. Klaus Berblinger has continued the Wednesday evening clinic, which is set up primarily for the personnel of the State Department of Mental Hygiene. Last year we set up a program for the rotation of state hospital residents to the Psychiatric Institute. Dr. Irene Hitchman of the Springfield Hospital is actively concerned in this program. We hope that in the future we will be able to collaborate more closely with the state hospital assistants in the clinical study of patients, as well as in teaching and research activity.

The Baltimore Psychoanalytic Society and Institute

Our relationship with the Baltimore Psychoanalytic Society and Institute has become progressively closer and more productive. Several senior members of the Psychoanalytic Society hold staff appointments in the Department and have participated in our undergraduate and graduate teaching programs. During the past years, two of our junior staff members have been accepted as candidates in training at the Institute and many others have participated in seminars offered by the Institute. Three of the regular scientific meetings and seminars of the Psychoanalytic Society were held at the Institute and were attended by many residents and other staff members.

The Psychiatric Institute cooperated with the Psychoanalytic Society in presenting a four-day course on the fundamentals of psychiatry for internists. The course was organized and directed by Dr. E. T. Lisansky and was attended by about one hundred physicians. The work during the first two days consisted of lecture and demonstration classes, patient centered, with student participation. During the last two days about twenty of the physicians took part in interviewing patients on the medical and psychiatric wards under supervision. The course was modeled after a series of courses in psychotherapeutic medicine by the U. S. Army under the direction of Dr. Finesinger. In addition to Dr. Lisansky, Drs. Finesinger, Anderson, McLaughlin, Hartz, Guttmacher, Brody, Callaway, and Robinson and Mr. Farinholt participated. Other instructors of this course were Dr. Leo Bartemeier, Drs. Bing, Marburg, Gray, Ferber of the Baltimore Psychoanalytic Institute, Drs. Frank Muncie and Meyer of the Johns Hopkins Medical School. The topics presented were normal personality development, psychopathology, psychoneurosis, psychosomatic illness, the problems of interviewing and relating to patients, and methods of psychotherapy. Three special evening sessions were held; Dr. Reginald S. Lourie of Washington, D. C., discussed special psychiatric problems of children, Dr. Frederick H. Allen of Philadelphia discussed psychiatric problems of the adolescent, and Dr. Isadore Tuerk discussed alcoholism. This course was so successful that plans are underway in collaboration with the Baltimore Psychoanalytic Institute to continue this type of course in 1958.

RESEARCH PROGRAM

The research program of the Institute is a broad one and is concerned primarily with understanding the various factors which make for mental illness and maladjustment. We have been fortunate in the continued support of national and local organizations. During the past year our total support from non-University sources was approximately \$300,000, over 60% of these funds being allocated for research.

(See Table III.) During the year it has been possible to integrate our research program more closely with the clinical program in the Inpatient Department. Six of our assistant residents and fellows and four medical students participated in various aspects of the program. The studies in progress are varied and involve work in biochemistry, neurophysiology, clinical psychology, sociology and philosophy. The work of Dr. Robert Grenell and Dr. Enoch Callaway represent attempts at correlating biochemical and physiological measures with psychological factors. The group working on drugs has been joined by Dr. Walter Weintraub and Dr. Harriet Aronson. Drs. Robinson, Pope, Finesinger, Silverstein, and Howe are continuing their studies on the teaching process. Clinical studies on alcoholism are being carried out by Drs. Berblinger, Tuerk, and Bare, studies on adolescents by Drs. Bagley and Coyle, studies on psychological mechanisms and psychotherapy by Drs. Weintraub, Finesinger, and Klee, and studies on the group process by Dr. Joseph Bierman and Miss Bonnie Strain. A brief description of the major research areas follows.

TABLE III

LIST OF PROJECTS SUPPORTED BY OUTSIDE AGENCIES—1957-1958

In Support of Research

U.S.P.H. Pilot and Evaluation	—
National Foundation for Infantile Paralysis	—
Army Chemical Center	—
U.S.P.H. Career Investigator	—
Office of Naval Research	—
Air Research and Development Command	—
Sadacca Fund	—
Maryland State Department of Public Health	—
U.S.P.H.	—
	\$162,670.00

In Support of Teaching

U.S.P.H. Clinical Psychology	—
U.S.P.H. Undergraduate Grant	—
U.S.P.H. Graduate Grant	—
U.S.P.H. Graduate Traineeships	—
Smith, Kline & French Foundation Fellowships	—
	\$105,000.00

In Support of Clinics

Maryland State Public Health Alcohol Clinic	—
Mental Hygiene Society of Greater Baltimore	—
	\$ 30,000.00

Total Support from Outside Agencies—1957-58	\$297,670.00
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Biochemical Studies

These studies are under the direction of Dr. Robert Grenell assisted by a full-time staff consisting of Dr. Leopold May, Mr. Elmar Einberg, Miss N. Hunt, Miss T. Tammaru, as well as by Mr. Daniel Sax, Mr. D. Brown and Mr. Myron Wolbarsht. During the past year this group has received support from the office of

Naval Research, the U. S. Public Health Service, the Sadacca Fund, and the Maryland Department of Public Health.

The Analysis of Central Nervous System Tissue: By the use of infra-red spectra, the effect of anoxia on the cerebral cortex of a rat is being studied. Extraction procedures are also used to separate the complex substances present, including the isolation of brain protolipids. Dr. Leopold May is investigating the possibility of measurements in the infra-red leading to further information on protein structure. The study relates to preliminary data showing amino-acid absorption in the spectral regions from 15-25 μ . Along similar lines Mr. Einberg has worked out ways of having reference films made on a routine basis. A major step in this work on the use of X-ray microradiography was the construction and alignment of a micro-photometer for making quantitative density measurements of the X-ray films. It is now possible to make reference films on a routine basis.

Studies on Specific Metabolic Pathways in Cerebral Reactions: Studies have been made on the regional analysis of glutamic-oxaloacetic transaminase and nucleic acid. The purpose of these studies is to add information to the "brain mapping" work of the department. Part of the transaminase analysis was carried out on post-mortem cerebral tissue as were certain other measurements of ATP and protein. The post-mortem state was used as an extreme state of tissue anoxia.

Malononitrile: The work on malononitrile described in our previous report is continuing. The studies are concerned with the effects of a malononitrile polymer on nerve cells. Our ultra-violet microscope and electrical studies indicate that this is a substance of great potency. Before considering its use on psychiatric patients, chronic toxicity studies are under way.

Studies in Alcoholism

This program is supported by the state Department of Public Health and is concerned with the effects of glutamine on alcoholic patients. The clinical aspects of this study were being carried out by Drs. Tuerk, Hordern, Berblinger, and Bare before and after the administration of glutamine. The clinical study is paralleled by studies in the laboratory in which the effect of glutamine on the alcohol consumption of rats is determined. In a similar manner the effects of alcohol and related substances on certain aspects of cerebral functions are recorded in the laboratory.

Studies in Perception

Dr. Callaway's group is continuing their work on the problems of perception (narrowed attention). This work has been carried out with the assistance of Dr. Raymond Band, Dr. Daniel Johnston, Mr. Charles Parker, Mr. John Alexander, Mr. Jesse Suit, and Miss Bernice Sigman. This work is supported in part by the National Institute of Mental Health. Several projects are being carried out in this general area:

1. The effects of drugs on focus of attention in control subjects. Drugs in use at present include sodium amytal, methamphetamine, and a milk-sugar placebo.
2. The relationship between focus of attention and physiological measures in psychotic patients. Currently, measurements are studied in relation to the

sedation threshold. An interesting correlation has been noted between Shagass' EEG endpoint and certain GSR changes.

3. The relationship between arterial pressure and focus of attention in "normals" and medical ward patients. This project is intended to follow up the observation that a high and significant correlation exists between measures of the focus of attention and base line systolic blood pressure in psychotic subjects. This study is also yielding interesting information on the limitations of some of our psychological test procedures. It appears that certain of the tests fail to measure focus of attention if the intelligence of the subject is below a certain critical value.

All of the above studies involve the use of the test battery worked out earlier on studies on the focus of attention. These include the Stroop test, Gottschaldt test, the guessing test, and reaction time measurement. In addition, we have included the Maudsley inventory to compare our concept to Eysenk's extraversion-introversion continuum.

Studies of the Teaching and Learning Process in Medical Students

The work in this project is supported by the National Institute of Mental Health. It has been carried on by Drs. Finesinger, Robinson, Pope, Silverstein, and Howe. Its basic interest is in the assessment of undergraduate and graduate teaching of Psychiatry. The emphasis in this study has been on the method of describing the activity of the therapist in carrying out psychotherapy. This stage of the work was concerned with the empirical construction of the scale of the therapist's verbal activity. This scale is based on the assumption that verbal activity, as used in the therapeutic situation, deals with ambiguity, inference, direction, and other similar phenomena. These can be meaningfully described along a unitary dimension rather than with the number of words used in the intervention. To this end a broad sampling of 50 different types of therapist's verbal operations were collected from people representing at least five distinctly different schools of belief and practice. Each type of operation was then typed on 3 x 5-inch cards. In set A the verbal operations were recorded verbatim, in set B an abstract description of each individual operation was recorded. Thirty experienced practicing psychiatrists from Baltimore and vicinity and from Washington, D. C., accredited by the American Board of Neurology and Psychiatry, were each asked individually to sort first one set and then the other set of cards, assigning a rating to each card along an eleven-point scale. The scale ranges from 1 (low activity = high ambiguity = low inference = low lead of direction) through 6 (average activity), through 11 (high activity = low ambiguity = high inference = high lead and direction).

The data collected in this manner are now in the process of analysis, which we hope will facilitate the determination of numerous reliability coefficients. This will indicate precisely the various types of verbal operations that can be statistically discriminated.

Over the past year, data have been collected from students at various levels of medical training, and from a sample of established psychiatric practitioners. The subjects have been presented with material from a filmed initial psychiatric interview, and then have been required to complete a questionnaire based on the interview, citing evidence to support their answers. The data from the questionnaires

are currently being analyzed to determine what changes take place in the students' responses over the four years of undergraduate medical training, and how the responses of the various classes of students compare with those of the psychiatrist in practice. It is clear from the analyses already performed that the answers of the incoming Freshmen differ appreciably from those of the upperclassmen, but it is too early to specify in detail the ways in which they differ. In general, however, Seniors appear to be more sensitive to psychopathology than are Freshmen, a finding which is consistent with expectations. Whether this increased sensitivity depends on the use of different kinds of cues, or on differences in the way that inferences are drawn from the same cues, is a question that further analysis should answer.

One possibility for future research in this problem area is an investigation of the correlates of individual differences in clinical perceptiveness in the attitudes, abilities, and personality traits of the medical students. Conceivably, this line of study might lead to improved techniques for the selection of individuals for advanced training in psychiatry.

Studies in Psychopharmacology

These studies are being carried out by Drs. Klee, Weintraub, Silverstein, Aronson, and Finesinger. They are, in part, supported by the U. S. Army Chemical Center.

Psychochemical studies: A number of studies have been done on the effect of lysergic acid, diethylamide, brom-lysergic acid, serotonin and antiserotonin, and dibenzylamine. These drugs have been administered alone and in combination with one another to normal human volunteers in order to observe their effects on the behavior and performance. A serotonin precursor, 5-hydroxytryptophan, has been administered to schizophrenic patients in order to determine the role of serotonin in schizophrenia, as postulated by some workers.

Psychological studies: A battery of psychological tests is being developed to study disturbances in thinking produced by certain drugs in psychiatric patients and in normal subjects.

The material dealt with in other studies at the Army Chemical Center is classified.

Studies in Clinical Psychiatry and Psychology

Cross validation study of the efficacy of the Pascal-Suttell method of scoring the Bender-Gestalt in discriminating between organic patients, schizophrenic patients and normals (Mrs. A. Rosenberg).

The analysis of research data on a group therapy experiment carried out by Dr. Kurt Glaser (Dr. J. J. Stein).

Conditioning study. The effect of knowledge of relevant stimulus dimensions upon amount of stimulus generalization (Dr. E. S. Howe).

The clinical observations on identical twins and their mother concurrently in psychotherapy (Drs. H. Ramirez, A. Tanega, J. Stein, Miss B. Strain and Mr. S. Joseph).

A study of concurrent therapy groups of mothers and their children (Miss B. Strain, Dr. J. S. Bierman, Mr. S. Joseph, and Dr. S. Raines).

A study of individual group dynamics in a group of boys (Dr. J. S. Bierman and Mr. S. Joseph).

A psychoanalytic study of the novel *Frankenstein* and of its author, Mary Shelley (Dr. J. S. Bierman).

Characteristics of the patient population of the Comprehensive Clinic at the University Hospital (Miss B. Overall and Mrs. I. S. Young).

Group process in intake groups of mothers, as seen in a Child Guidance Clinic (Miss B. Strain and Dr. J. S. Bierman).

The development of psychological tests for the recognition and scoring of repression (Dr. W. Weintraub and Dr. J. E. Finesinger).

The effect of chemical agents upon the mechanisms of projection (Dr. G. Klee, Dr. W. Weintraub and Dr. J. E. Finesinger).

A study of the patient profile in a Psychosomatic Unit (Dr. J. Raher and Miss P. Shanahan).

FRIDAY MORNING STAFF CONFERENCES—1957-1958

During the past year the program for the Friday Morning Staff Conferences has been organized and planned by Dr. Enoch Callaway and the Program Committee. Distinguished investigators have presented reports of their research activity at these meetings, which are attended by our staff, students and professional colleagues. We have been pleased at the level of these papers and at the increasing number of contributions reported by members of our own Institute.

"Circulatory Effects of Tranquilizing Drugs," Martin Helrich, M.D., Professor of Anesthesiology, University of Maryland, School of Medicine, Baltimore, Md. Oct. 4.

"The Problem of Consensus in Psychoanalytic Research," Philip F. D. Seitz, M.D., Staff Member, Institute for Psychoanalysis, Chicago, Ill. Oct. 11.

"Considerations of Family Diagnosis and Treatment," Marta Korwin, M.S.W., Instructor in Psychiatric Social Work, University of Maryland, School of Medicine, Baltimore, Md. Oct. 18.

"Brain Damage," Leon Eisenberg, M.D., Assistant Professor of Psychiatry and Pediatrics, Johns Hopkins Hospital, Baltimore, Md. Oct. 25.

"The Chronic Disease Commission's Survey of Mental Illness in Baltimore," Benjamin Pasamanick, M.D., Professor of Psychiatry, Ohio State College, College of Medicine, Columbus, Ohio. Nov. 1.

"Psychiatric Social Work and Research," Daniel O'Keefe, Ph.D., Chief, Social Service Department, Clinical Center, National Institute of Health, Bethesda 14, Md. Nov. 8.

"The Social and Cultural Determinants of the Doctor's Role," John P. Spiegel, M.D., Department of Social Relations, Harvard University, Cambridge, Mass. Nov. 15.

"Brain Function and Social Behavior," H. Enger Rosvold, Ph.D., Chief, Section of Animal Behavior, Laboratory of Psychology, National Institute of Mental Health, Bethesda, Md. Nov. 22.

"Some Problems with the Concept of Motivation," Charles N. Cofer, Ph.D., Professor of Psychology, University of Maryland, College Park, Md. Dec. 6.

- "Ammonia Intoxication Amine and Consciousness," Samuel P. Bessman, M.D., Associate Professor of Pediatrics, University of Maryland, School of Medicine, Baltimore, Md. Dec. 13.
- "The Challenge of an Aging Population," Nathan W. Shock, Ph.D., Chief, Gerontology Branch, National Institute of Health, Bethesda, Md. Dec. 20.
- "Post-Partum Reactions—Usual and Unusual," Gregory Zilboorg, M.D., Professor of Psychiatry, New York Medical College, New York, N. Y. Jan. 3.
- "Human Figure Drawings and the Body Image," Harvey A. Robinson, Ph.D., Research Associate, and Arthur B. Silverstein, Ph.D., Research Associate, Psychiatric Institute, University of Maryland, Baltimore, Md. Jan. 10.
- "Decisions in the Face of Uncertainty," Jacqueline J. Goodnow, Ph.D., Research Social Psychologist, Walter Reed Army Institute of Mental Research, Washington, D. C. Jan. 17.
- "Research Trends and Needs in Psychopharmacology," Jonathan Cole, M. D., Director of the Psychopharmacology Service Center, National Institute of Mental Health, Bethesda, Md. Jan. 24.
- "Studies on Anxiety in Children," Seymour Sarason, Ph.D., Professor of Psychology, Yale University, New Haven, Conn. Jan. 31.
- "Decisions in the Face of Uncertainty," Jacqueline J. Goodnow, Ph.D., Research Social Psychologist, Walter Reed Army Institute of Mental Research, Washington, D. C. Feb. 7.
- "A Study of the Novel *Frankenstein* and Its Author, Mary Shelley," Elizabeth Nitchie, formerly Head of the Department of English, Goucher College, Baltimore, Md. Feb. 14.
- "The Role of Acetylcholine and Acetylcholinesterases and the Schizophrenic Psychoses," Leonard Rubin, Ph.D., Senior Medical Research Scientist, Eastern Pennsylvania Psychiatric Institute, Philadelphia 29, Pa. Mar. 7.
- "Direct Analysis," John N. Rosen, M.D., Co-Director of the Institute for Direct Analysis and Associate Professor of Clinical Psychiatry, Temple University Medical Center, Philadelphia, Pa. Mar. 28.
- "A Recovery Pathway in Certain Women with Psychosomatic Disease," Eugene Meyer, M.D., Associate Professor of Psychiatry, Johns Hopkins Hospital, Baltimore, Md. Apr. 11.
- "The Common Boundary Between Parapsychology and Psychopathology," Joseph B. Rhine, M.D., Professor of Parapsychology, Parapsychology Laboratory, Duke University, Durham, N. C. Apr. 18.
- "Does the Quality of Housing Affect Physical and Mental Health: The Johns Hopkins Longitudinal Study," Daniel M. Wilner, Ph.D., Associate Professor of Biostatistics, School of Hygiene and Public Health, The Johns Hopkins University, Baltimore, Md. Apr. 25.
- "Relation Between Constancy of Perception and Abstract Thinking in Schizophrenic Patients," T. E. Wechowicz, M.B., Ch.B., D.P.M., Research Psychiatrist, The Saskatchewan Hospital, Weyburn, Saskatchewan, Can. May 2.
- "Problems of Forming Relationships in the Initial Contact Between Clients and

- Case-Worker or Counselor," Norman A. Polansky, Ph.D., Associate Professor of Social Work and Psychology, Western Reserve University, Cleveland, Ohio. May 16.
- "Hallucinogenic Drugs in Psychiatric Research," Gerald D. Klee, M.D., Arthur B. Silverstein, Ph.D., and Walter Weintraub, M.D., Research Associates, Psychiatric Institute, University Hospital, Baltimore, Md. May 23.
- "Development of Concepts Relating to the Electrical Activity of the Brain," Mary A. B. Brazier, Ph.D., Neurophysiologist, Massachusetts General Hospital, Boston, Mass. June 6.
- "Psychological Determinants of Asthma," Marvin Stein, M.D., Assistant Professor of Psychiatry, University of Pennsylvania, Philadelphia, Pa. June 13.
- "Changing Concepts of Hysteria," Anthony Hordern, M.D., Instructor in Psychiatry, and Klaus W. Berblinger, M.D., Associate Professor of Psychiatry, University of Maryland, Baltimore, Md. June 20.

PUBLICATIONS BY PSYCHIATRIC STAFF MEMBERS

- BRODY, E.: Character Disorder, Borderline State, and Psychosis, *Psychiatry* (in press).
- BRODY, E.: What Do Schizophrenics Learn and How Do They Learn It?, *J. Nerv. and Ment. Dis.* 127:66, 1958.
- BRODY, E.: Superego, Introjected Mother and Energy Discharge in Schizophrenia, *J. Am. Psychoanalyt. A.* 6:481, 1958.
- CALLAWAY, E. and DEMBO, D.: Narrowed Attention: A Psychological Phenomenon that Accompanies a Certain Physiological Change, *A.M.A. J. Neurol. & Psychiat.* 79:74, 1958.
- CALLAWAY, E. and BAND, R. I.: Some Psychopharmacological Effects of Atropine: The Preliminary Investigation of Broadened Attention, *A.M.A. J. Neurol. & Psychiat.* 79:91, 1958.
- CALLAWAY, E., BAND, R. and FINESINGER, J. E.: Some Psychopharmacological Effects of Atropine, *Am. J. Clin. Invest.* 36:877, 1957.
- CALLAWAY, E.: A Practical Application of Information Theory in Psychopharmacology, A.P.A., Eastern Regional Research Conference, Phila., 1956 (in press).
- FARINHOLT, JR., L. W. and ANGEL, V. V.: Twilight of Federal Jurisdiction, *North Carolina Law Review* 26:29, 1957.
- FARINHOLT, JR., L. W.: Res Ipsa Loquitur, *Maryland Law Review* 10:337, 1957.
- FARINHOLT, JR., L. W.: Goodrich—Handbook of Conflict of Laws, *Maryland Law Review* 11:154, 1957.
- FARINHOLT, JR., L. W.: Plant-Cases on the Law of Tort, *J. Legal Educ.* 6:606, 1957.
- FARINHOLT, JR., L. W.: Overholser—The Psychiatrist and the Law, *Maryland Law Review* 14:390, 1957.
- FARINHOLT, JR., L. W.: The Teaching of Medico-Legal Materials at the University of Maryland School of Law, *J. Legal Educ.* 8:508, 1957.
- FARINHOLT, JR., L. W.: The Legal Aspects of Traffic Accident Prevention, *Maryland M. J.* 6:630, 1957.
- FINESINGER, J. E. (participating author): Integrating the Approaches to Mental Disease. Kruse, H. D., M.D., Ed. New York, Paul B. Hoeber, 1957.
- FINESINGER, J. E.: Participant, Conference transactions. Panic and Morale. Iago Galdston, M.D., Ed. New York, International University Press, 358, 1958.
- FINESINGER, J. E.: The Treatment of Psychosomatic Disorders in Psychiatry for the General Practitioner, publication of Carrier Clinic, Princeton, N. J., 1957.
- FINESINGER, J. E.: Editorial, *J. Nerv. and Ment. Dis.* 126:1, 1958.
- FINESINGER, J. E.: The Teaching of Psychotherapy, *J. Ment. Sc.* 104:504, 1958.
- GLASER, K.: Problems in School Attendance (School Phobia and Related Conditions), *Pediatrics* (in press).

- GRENELL, R. G.: Mechanisms of Action of Psychotherapeutic and Related Drugs, *Ann. New York Acad. Sc.* 66:826, 1957.
- GRENELL, R. G.: Some Effects of Alcohols on the Central Nervous System, *Alcoholism. AAAS* (Public. No. 47), Washington, D. C., 1958.
- GRENELL, R. G.: Effects of Insulin on Cortical Evoked Potentials, *Fed. Proc.*, 1958.
- HOWE, EDMUND: GSR Conditioning in Anxiety States, Normals, and Chronic Functional Schizophrenia, *J. Abnorm. Social Psychol.* 55:183, 1958.
- LISANSKY, E. T.: Editorial. The Eradication of Malaria in the United States of America, *Ann. Int. Med.* 48:428, 1958.
- MAHL, G. F. and BRODY, E. B.: Gastric HCl, 1954. Reprinted in Podolsky, E., *Neuroses and Their Treatment, Philosophical Library (Chronic Anxiety Symptomatology, Experimental Stress and HCl Secretion)*, 1957.
- MAY, L. and GRENELL, R. G.: Some Intraneuronal Chemical Responses to Drugs, IXth International Cong. for Cell Biology, 1957.
- MAY, L. and GRENELL, R. G.: Infrared Spectral Studies of Tissues, *Ann. New York Acad. Sc.* 69:171, 1957.
- MAY, L. and GRENELL, R. G.: Nucleic Acid Content of Cerebral Neurons, *Neurology* 8, suppl. 1, 56, 1958.
- MAY, L. and GRENELL, R. G.: Infrared Spectroscopy of Nervous Tissue, *J. Neurochem.* 2:138, 1958.
- MAY, L. and GRENELL, R. G.: Some Structural and Molecular Facets of the Effects of Drugs on Nerve Cells, *Proc. A. Res. Nerv. & Ment. Dis.* (in press).
- MAY, L.: Use of Alkali Halide Disks for the Study of the Infrared Spectra of Tissues & Proteins, (in press).
- MAY, L.: The Distribution of Glutamic-Oxaloacetic Transaminase in Rat Brain (in press).
- POPE, BENJAMIN: A Psychological Study of a Pair of Identical Twins, *J. of Projective Techniques* (in press).
- POPE, BENJAMIN: Supervision in the Training of Clinical Psychologists, in Finn, M. H. P. and Brown, F. *The Psychologist Intern*, Springfield-Sinai Conference, New York, International Univ. Press (in press).
- REID, JOHN: Logical Analysis, *Am. J. Psychiat.* 114:397, 1957.
- REID, JOHN: Human Values in Medical Education, *J. of Nerv. & Ment. Dis.* (in press).
- ROBINSON, H. A. and FINESINGER, J. E.: The Significance of Work Inhibition for Rehabilitation, *Soc. Work*, 22, 1957.
- SILVERSTEIN, A. and KLEE, G. D.: The Effect of Lysergic Acid Diethylamide on Intellectual Functions, *AMA Arch. Neurol. & Psychiat.* (in press).
- WILL, O. A.: Psychotherapeutics and the Schizophrenic Reaction, *J. Nerv. & Ment. Dis.* 126:109, 1958.

Book Reviews:

- BERBLINGER, K. W.: *The Hangover. A Critical Study in the Psychodynamics of Alcoholism* by Benjamin Karpman, *J. Nerv. & Ment. Dis.* (in press).
- BERBLINGER, K. W.: *Abbau der Persönlichkeit. Zum Problem der Persönlichkeits-veränderungen bei Dystrophia in sowjetischer Kriegsgefangenschaft.* By Ulrich Gries (in press).
- BERBLINGER, K. W.: *Lehrbuch der Psychiatrie.* By Hans Hoff (2 vols.), *J. Nerv. & Ment. Dis.* (in press).
- BERBLINGER, K. W.: *Genie Irrsinn und Rhum. Eine Pathographie des Genies.* By Wilhelm Lange-Eichbaum, *J. Nerv. & Ment. Dis.* (in press).
- BERBLINGER, K. W.: *Psychoendocrinology.* Edited by Max Reiss, *J. Nerv. & Ment. Dis.* (in press).
- BRODY, E.: *Modern Clinical Psychology.* By Saul Garfinkel, *Amer. J. Psychiat.* (in press).
- BRODY, E.: *Social Class and Mental Illness.* By Hollingshead and Redlich, *Amer. J. Psychiat.*, 1958.
- FARINHOULT, JR., L. W.: *Zilboorg—The Psychology of the Criminal Act and Punishment*, *Maryland Law Review* 15:82, 1957.
- HOWE, E.: *The Measurement of Meaning.* By C. E. Osgood, G. Suci, and P. Tannenbaum, *J. Nerv. & Ment. Dis.*, 1958.

TALKS AND CONFERENCES BY MEMBERS OF THE INSTITUTE STAFF

JULY 1, 1957-JUNE 30, 1958

- Bagley, C., III: Mental Health Institute, Participant. Easton, Md. Mar. 18, 1958.
- Bagley, C., III: Mental Health Problems. Kiwanis Club. Halethorpe, Md. Apr. 15, 1958.
- Bagley, C., III: Keynote Speaker. Mental Health Campaign Drive. Baltimore, Md. Apr. 18, 1958.
- Bagley, C., III: State Mental Health Association. Talk at Anne Arundel County Mental Health Association. Apr. 20, 1958.
- Berblinger, K. W.: Psychological Aspects of Tuberculosis Nursing. Institute on Tuberculosis Nursing Education. Maryland State Nurses Association, Maryland League for Nursing and Maryland Tuberculosis Association. Baltimore, Md. Jan. 10, 1958.
- Berblinger, K. W.: Discussion of E. T. Lisansky's paper on "Psychosomatic Aspects of Anorexia Nervosa." Maryland Association of Private Practicing Psychiatrists. Sheraton-Belvedere Hotel. Baltimore, Md. Feb. 25, 1958.
- Berblinger, K. W.: How Can the General Practitioner Deal with the Emotional Aspects of an Organic Illness? Panel Discussion on "The Physician's Role in Treatment." Postgraduate Institute. Doctors Hospital. Baltimore, Md. Apr. 29, 1958.
- Bierman, J. S.: Human Growth and Development. Part I of Course Sponsored by Howard University School of Social Work. Psychiatric Institute. Baltimore, Md. Sept. 1957-Jan. 1958.
- Bierman, J. S.: The Emotional Problems of Children. Parent-Teachers Association. Rodgers Forge Public School. Baltimore, Md. Nov. 1957.
- Bierman, J. S., Kurt Glaser, Bonnie Strain, Mary Anne McDowall, Jacob J. Stein: Emotional Problems of Children. Television Program, TV-MD. Station WBAL-TV. Baltimore, Md. Mar. 9, 1958.
- Bierman, J. S.: Community Resources in the Treatment of Emotionally Disturbed Children. Member of Panel. Baltimore Council of Social Agencies. Psychiatric Institute. Baltimore, Md. Apr. 23, 1958.
- Bierman, J. S.: Pediatric Behavior Problems. Postgraduate Institute on Neuropsychiatry in General Practice. Doctors Hospital. Baltimore, Md. May 2, 1958.
- Brody, E. B.: Character Disorder, Borderline State, and Psychosis: Some Conceptual Problems. Maryland Association for Private Practicing Psychiatrists. Baltimore, Md. Jan. 25, 1958.
- Brody, E. B.: What Do Schizophrenics Learn During Psychotherapy and How Do They Learn It? Maryland Psychiatric Association. Baltimore, Md. Mar. 18, 1958.
- Brody, E. B.: What do Schizophrenics Learn During Psychotherapy? Chestnut Lodge. Rockville, Md. Apr. 1958.
- Brody, E. B.: What Can the General Practitioner Do for Patients with Mild Anxiety and Depression? Postgraduate Course at Doctors Hospital. Baltimore, Md. Apr. 1958.

- Brody, E. B.: Indications for Psychological Testing: The Referral As a Social Process. Member of Panel on Psychological Testing. American Psychiatric Association and American Society for Projection Techniques, San Francisco, Calif. May 13, 1958.
- Brody, E. B.: Countertransference in the Therapy of Schizophrenia. Discussion of Paper by Dr. Savage. Annual Meeting of the American Psychiatric Association. San Francisco, Calif. May 14, 1958.
- Burnett, F. M.: Chairman. Workshop in Disaster. District Nurses Association, No. 4. Cambridge, Md. Oct. 3, 1957.
- Burnett, F. M.: Human Relations. A Series of 15 Seminars. Lutheran Hospital School of Nursing. Baltimore, Md. Oct.-Dec. 1957.
- Burnett, F. M.: The Integration of Psychological Skills with the Basic Nursing Curriculum. Paper read for Faculty of St. Joseph's Hospital School of Nursing. Jan. 1958.
- Burnett, F. M.: Supervision in the Growth and Development of the Nurse. Workshop for Nurses. Catholic University. Washington, D. C. Feb. 1958.
- Burnett, F. M.: Participant in Work Conference on Nurse-Midwifery. Southern Hotel. Baltimore, Md. Apr. 14-18, 1958.
- Burnett, F. M.: Chairman. Workshop in Disaster. District Nurses Association, No. 1. Cumberland, Md. May 28, 1958.
- Callaway, E.: A Critique of Biological Research in Schizophrenia (discussant). Maryland Psychiatric Society. Baltimore, Md. Nov. 14, 1957.
- Callaway, E.: Physiology of Attention. K-Agent Conference. U. S. Army Chemical Warfare Laboratories. Army Chemical Center, Md. Nov. 22, 1957.
- Callaway, E.: Tranquilizing Drugs. Television Program, Station WMAR-TV. Baltimore, Md. Dec. 7, 1957.
- Callaway, E.: Jobs and Futures Workshop. (Participant, Physical Science Panel.) Goucher College. Towson, Md. Jan. 22, 1958.
- Callaway, E.: The Focus of Attention. University of Maryland Biological Society. University of Maryland School of Medicine. Baltimore, Md. Jan. 29, 1958.
- Callaway, E., and Band, R. D.: The Focus of Attention. Read at Annual Meeting of American Psychiatric Association. San Francisco, Calif. May 12, 1958.
- Fainberg, S.: Some Observations in Professional Education. Psychiatric Social Work Section. National Association of Social Workers. Baltimore, Md. Feb. 26, 1958.
- Farinholt, L. W., Jr.: Psychiatry and Law. Lecture series. Crownsville State Hospital. Crownsville, Md. Oct.-Nov. 1957.
- Farinholt, L. W., Jr.: The Maryland Defective Delinquent Law. Panel discussion. University of Maryland. Baltimore, Md. Jan. 1958.
- Farinholt, L. W., Jr.: Institute of the Heart for Lawyers. Maryland Medico-Legal Institute. Baltimore, Md. Apr. 18, 1958.
- Farinholt, L. W., Jr.: Legal Background of Medico-Legal Problems. Sinai Hospital. Baltimore, Md. May 10, 1958.

- Farinholt, L. W., Jr.: Trauma and Heart Disease. Co-discussant with Dr. Paul Dudley White. Meeting of the Maryland State and Baltimore City Bar Association, and the Medical and Chirurgical Faculty of Maryland. May 1958.
- Farinholt, L. W., Jr.: The Defective Delinquent and the Law. Kiwanis Club. Reisterstown, Md. May 27, 1958.
- Farinholt, L. W., Jr.: The Trial Judge Looks at the Trial Attorney. Moderator of Panel. Maryland State Bar Association Meeting. Atlantic City, N. J. June 20, 1958.
- Finesinger, J. E.: Participant—International Psychiatric Congress in Switzerland. Sept. 1-3, 1958.
- Finesinger, J. E.: Teaching Psychotherapy. Section on Medical Psychology, Royal Society of Medicine. London, Eng. Sept. 10, 1957.
- Finesinger, J. E.: Operational Psychotherapy. Maudsley Hospital. London, Eng. Sept. 12, 1957.
- Finesinger, J. E.: Seminars on Teaching Psychotherapy. Maudsley Hospital. London, Eng. Sept. 12, 1957.
- Finesinger, J. E.: Participant in Workshop on the Ecology of the Medical Student. American Association of Medical Colleges. Atlantic City, N. J. Oct. 17-19, 1958.
- Finesinger, J. E.: Certain Methodological Considerations in the Study of Drugs and Patients. K-Agent Conferences. U. S. Army Chemical Warfare Laboratories. Army Chemical Center, Md. Nov. 21, 1957.
- Finesinger, J. E.: Effects of Chemical Agents in Man. Chairman of Panel. K-Agent Conference. U. S. Army Chemical Warfare Laboratories. Army Chemical Center, Md. Nov. 21, 1957.
- Finesinger, J. E.: The Role of the General Practitioner in Relation to the Specific Psychiatric Case. (Panel discussant.) Fourth Conference of Mental Health Representatives of State Medical Associations. Chicago, Ill. Nov. 22-23, 1957.
- Finesinger, J. E.: Participant—Discussion on Survey of Psychiatric Teaching Programs in Southern Medical Schools. Southern Regional Educational Board. Atlanta, Ga. Dec. 10, 1957.
- Finesinger, J. E.: The Research Program of the Psychiatric Institute. Chairman, Panel Discussion. University of Maryland Biological Society. University of Maryland School of Medicine. Baltimore, Md. Jan. 29, 1958.
- Finesinger, J. E.: Series of Seminars in Psychotherapy. The Institute of Living. Hartford, Conn. Feb. 26-28, 1958.
- Finesinger, J. E.: Psychological Components in Medicine. Paper read at Annual Conference of Chicago Medical Society. Chicago, Ill. Mar. 6, 1958.
- Finesinger, J. E.: Moderator. Panel on Tranquilizing Drugs. Annual Conference of the Chicago Medical Society. Chicago, Ill. Mar. 6, 1958.
- Finesinger, J. E.: Seminars on Psychotherapy. Walter Reed Army Hospital. Washington, D. C. Mar. 10 and 17, 1958.
- Finesinger, J. E., and Kellam, Sheppard G.: "Permissiveness—Its Definition, Usefulness and Application in Carrying Out Psychotherapy." Paper read at the

- annual meeting of the American Psychiatric Association. San Francisco, Calif. May 13, 1958.
- Glaser, K.: Mother Deprivation. McCoy College. Johns Hopkins University. Baltimore, Md. July 16, 1957.
- Glaser, K.: Emotional Characteristics of the Adolescent. Adolescent Unit Staff Conference. Baltimore, Md. Aug. 1, 1957.
- Glaser, K.: Problems of Teen-Agers. Temple Oheb Shalom. Baltimore, Md. Sept. 22, 1957.
- Glaser, K.: Capsule Course in Parent Education. Fallstaff Road School. Parent-Teachers Association. Baltimore, Md. Three talks given Oct. 14, 21, 28, 1957.
- Glaser, K.: Psychometric Considerations in Testing the Mentally Retarded. Quarterly Meeting of Board of Consultants. Rosewood State Training School. Owings Mills, Md. Oct. 29, 1957.
- Glaser, K.: Public Health Nurses. Baltimore City Department of Health. Series of 11 Sessions on Emotional Problems in Children. Baltimore, Md. Oct. 1957 to Jan. 1958.
- Glaser, K.: Avoiding Behavior Problems. Child Study Association of Baltimore. Beth Jacob Child Study Group. Baltimore, Md. Feb. 3, 1958.
- Glaser, K.: Participant in Conference on Psychiatric Care in a Community Setting. Baltimore Council of Social Agencies. Baltimore, Md. Feb. 20, 1958.
- Glaser, K.: You and Your Children's Problems. Panel Member. TV-MD Television Program. WBAL-TV. Baltimore, Md. Mar. 9, 1958.
- Glaser, K.: Those Physical Changes in Adolescence. Parent-Teachers Association. Catonsville Junior High School. Catonsville, Md. Mar. 25, 1958.
- Glaser, K.: Each Member's Niche in the Family. North West Cooperative Nursery. Baltimore, Md. April 8, 1958.
- Glaser, K.: Psychiatric Implications in Pediatric Practice. Department of Pediatrics. Mercy Hospital. Baltimore, Md. April 10, 1958.
- Glaser, K.: Sex Education. Uptown Chapter Child Study Group. Baltimore, Md. April 23, 1958.
- Glaser, K.: Growing Edges of Parent Education. Moderator of Panel Discussion. Parent Education Institute. Baltimore, Md. April 30, 1958.
- Glaser, K.: Parent-Child Relationship. Forest Garden Child Study Group. Baltimore, Md. June 2, 1958.
- Grenell, R. G.: Participant. International Congress of Cell Biology. St. Andrews, Scotland. Aug. 1957.
- Grenell, R. G.: Macy Foundation Conference on Neuropharmacology. Panel Member. Princeton, N. J. Oct. 1957.
- Grenell, R. G.: Biological Investigations in Certain Functions of the Central Nervous System. University of Maryland Biological Society. Baltimore, Md. Jan. 29, 1958.
- Grenell, R. G.: Uremia and the Central Nervous System. Panel Member. American Association for Artificial Internal Organs. Philadelphia, Pa. Feb. 1958.

- Grenell, R. G.: Conference. Panel Member. Brain Research Foundation. New York, N. Y. Mar. 1958.
- Grenell, R. G.: Recent Advances in Psychiatric Research. Moderator of Panel and Participant Speaker. Postgraduate Institute. Doctors Hospital. Baltimore, Md. April 29, 1958.
- Hartz, J.: Initial Interviewing. Talk to Residents at the Johns Hopkins Hospital. Baltimore, Md. July 25, 1957.
- Hartz, J.: Fashions in Feeling. Ladies Auxiliary. Levindale Home. Baltimore, Md. Aug. 16, 1957.
- Hartz, J.: Symposium on Alcohol and Tuberculosis. Baltimore City Hospitals. Baltimore, Md. Nov. 26, 1957.
- Hartz, J.: A Schizophrenic Illness—20 Years Later. Paper read at Maryland Psychological Society. Baltimore, Md. Mar. 12, 1958.
- Hartz, J.: Symposium on Psychiatric Training Problems. Maryland Psychiatric Society. Baltimore, Md. Apr. 10, 1958.
- Hartz, J.: Psychosomatic Problems. Postgraduate Course in Psychiatry and Psychosomatic Medicine. Psychiatric Institute. Baltimore, Md. June 10, 1958.
- Hordern, A. and Berblinger, K. W.: Changing Concepts of Hysteria. Staff Conference. Psychiatric Institute. Baltimore, Md. May 13, 1958.
- Howe, E.: GSR Conditioning in Anxiety States in Normals and Chronic Functional Schizophrenia. Paper read at American Psychological Association. New York, N. Y. Sept. 1957.
- Klee, G. D.: Two papers presented to group visiting the Army Chemical Center; material deals with work done under Army Chemical Corps Contract. Army Chemical Center, Md. Nov. 21-23, 1957.
- Klee, G. D., Weintraub, W. and Silverstein, A.: Hallucinogenic Drugs in Psychiatric Research. Psychiatric Institute. Baltimore, Md. May 23, 1958.
- Klee, G. D.: Biochemistry and Schizophrenia. Discussion of Paper by Dr. Howard Fabing. Maryland Psychiatric Society. Baltimore, Md. Jan. 9, 1958.
- Korwin, M.: Considerations of Family Diagnosis and Treatment. Staff Conference. Psychiatric Institute. Baltimore, Md. Oct. 18, 1957.
- Korwin, M.: Mothers of Schizophrenic Patients. Read at Department of Public Welfare. Washington, D. C. May 1958.
- Korwin, M.: Social Work Services to Alcoholic Patients and Members of their Families. Panel Participant. University of Maryland. Baltimore, Md. Nov. 1957.
- Lisansky, E. T.: Psychosomatic Medicine. University of Maryland Law School. Baltimore, Md. Oct. 31, 1957.
- Lisansky, E. T.: The Relationship Between Sociology, Psychiatry and Internal Medicine. U. S. Veterans Hospital. Lebanon, Pa. Nov. 14, 1957.
- Lisansky, E. T.: Psychosomatic Medicine. Enoch Pratt Library. Baltimore, Md. Jan. 8, 1958.
- Lisansky, E. T.: Psychosomatic Medicine. Women's Auxiliary of the Baltimore Medical Society at the Johns Hopkins Faculty Club. Baltimore, Md. Mar. 6, 1958.

- Lisansky, E. T.: Anorexia Nervosa. Maryland Association of Private Practicing Psychiatrists. Baltimore, Md. Feb. 24, 1958.
- Lisansky, E. T.: Psychosomatic Medicine. Postgraduate Assembly, University of Maryland School of Medicine. Baltimore, Md. Mar. 5, 1958.
- May, L.: Infrared Sampling Techniques. Presented at Meeting of the Baltimore-Washington Spectroscopy Society and the Maryland Section of the American Chemical Society. Baltimore, Md. Nov. 22, 1957.
- May, L.: Infrared Spectroscopy of Tissues. Seminar held at U. S. Army Chemical Warfare Laboratories. Army Chemical Center, Md. Jan. 8, 1958.
- McDowall, M. A.: Emotional Problems of Children. Hilltop Child Study Group. Baltimore, Md. Feb. 26, 1958.
- McDowall, M. A.: Emotional Problems of Meeting Children. Meeting of Board Members of St. Mary's Villa. Baltimore, Md. 1958.
- McDowall, M. A.: The Involvement of Fathers in Diagnosis and Treatment in Child Guidance Clinics. Workshop on Behavior Difficulties of Children. Baltimore Council of Social Agencies. May 15, 1958.
- McDowall, M. A.: Some Observations on Psychiatric Social Work Education. Psychiatric Social Work Section, National Association of Social Workers. Baltimore, Md. 1958.
- Pats, N.: Some Observations on Psychiatric Social Work Education. National Association of Social Workers. Baltimore, Md. Feb. 26, 1958.
- Phillips, F. E.: Problems of College Students. Talk given to Freshman Class at Goucher College. Towson, Md. Oct. 1, 1957.
- Phillips, F. E.: Adolescent Problems. Talk given to Parent-Teachers Association. Park School. Baltimore, Md. Nov. 25, 1957.
- Phillips, F. E.: Impact of Comics and Television on Elementary School Children. Talk given to Parent-Teacher Association. Towson, Md. Mar. 18, 1958.
- Phillips, F. E.: What Is Psychiatry? Talk given to Senior Class in Science and Social Studies at Catonsville Senior High School. Catonsville, Md. Apr. 1958.
- Pope, B.: The Psychologist in Comprehensive Medicine. Paper read at Regional Meeting, U. S. Veterans Administration. Lebanon, Pa. Nov. 14, 1957.
- Pope, B.: Studies on the Acquisition of Clinical Skills by Medical Students. Panel Discussion. Maryland Biological Society. University of Maryland School of Medicine. Baltimore, Md. Jan. 29, 1958.
- Reed, J. W.: Human Growth and Development. Part II of course sponsored by Howard University School of Social Work. Psychiatric Institute. Baltimore, Md. Feb.-June 1958.
- Robinson, H. A.: Situational Approaches to the Measurement of Personality. Symposium, Rutgers University School of Education. New Brunswick, N. J. Dec. 18, 1957.
- Robinson, H. A. and Silverstein, A. B.: Body Image and Human Figure Drawings. Psychiatric Institute Staff Conference. Baltimore, Md. Jan. 10, 1958.
- Robinson, H. A.: Developmental Psychology and Sex Education. Parent-Teachers Association. Baltimore, Md. Mar. 18, 1958.

- Robinson, H. A.: Socio-Psychological Aspects of Diagnosis and Treatment: Theoretical Implications. Paper presented 29th Annual Meeting, Eastern Psychological Association. Philadelphia, Pa. Apr. 12, 1958.
- Schnaper, N.: Psychiatric Aspects of Anesthesiology. Staff of Department of Anesthesiology. University Hospital and Baltimore City Hospital. Baltimore, Md. Apr. 15, 1958.
- Strain, B.: Psychiatric Social Service. Series of six seminars to Resident Staff of Sheppard and Enoch Pratt Hospital. Towson, Md. Mar. 1958.
- Strain, B.: Services Provided by the Child Guidance Clinic. Meeting of School Counselors, Board of Education. Baltimore, Md. Apr. 17, 1958.
- Strain, B.: The Role of the Psychiatric Social Worker in a Group Therapy Program. Psychiatric Social Work Section, National Association of Social Workers. Baltimore, Md. Apr. 24, 1958.
- Strain, B.: Community Workshop on "Education Unlimited." Panel Participant. Department of Education. Baltimore, Md. June 24, 1958.
- Sutherland, G. F.: The Salivary Curve—A Psychiatric Thermometer. Annual Meeting of the American Psychiatric Association. San Francisco, Calif. May 13, 1958.
- Tuerk, I.: Alcoholism. Baltimore City Medical Society. Baltimore, Md. Feb. 1958.
- Vail, P. C.: Some Considerations about Increased Public Interest in Mental Health. Kenwood High School. Baltimore, Md. Jan. 8, 1958.
- Ward, C. S.: What Is Mental Illness? Talk given to Caroline County Mental Hygiene Society. Nov. 22, 1957.
- Ward, C. S.: Adolescent Problems of Sex. Talk given to the Hi-Y Club of Towson High School. Towson, Md. Dec. 7, 1957.
- Ward, C. S.: Ataraxic Drugs. Participant Panel Discussion. Television program, WMAR-TV. Baltimore, Md. Dec. 7, 1957.
- Will, O. A.: Psychotherapy of Schizophrenia. Walter Reed Research Institute. Washington, D. C. Jan. 29, 1958.
- Will, O. A.: Psychotherapy of Schizophrenia. Series of three Lectures. St. Elizabeth's Hospital. Washington, D. C. Feb. 1958.
- Will, O. A.: Principles of Psychotherapy. Series of ten Lectures. Spring Grove State Hospital. Catonsville, Md. Winter-Spring 1958.
- Will, O. A.: Psychotherapy and the Schizophrenic Reaction. Series of eight Lectures. Washington School of Psychiatry. Washington, D. C. Winter-Spring 1958.
- Will, O. A.: Psychoanalytic Technique. Series of fifteen Conferences. Washington Psychoanalytic Institute. Washington, D. C. Winter-Spring 1958.
- Will, O. A.: Human Relatedness and the Schizophrenic Reaction. Pennsylvania State College. University Park, Pa. Apr. 14, 1958.
- Will, O. A.: Discussion of Paper by S. L. Olnick, on the Analytic Paradox: Some Advance Factors in the Psychoanalytic Process. St. Elizabeth's Hospital. Washington, D. C. Apr. 26, 1958.

- Will, O. A.: *The Psychotherapy of Schizophrenia*. University of Chicago. Chicago, Ill. June 2, 1958.
- Will, O. A.: *Psychotherapy and Schizophrenia*. University of Chicago. Chicago, Ill. June 2, 1958.
- Young, I. S.: Discussant of Paper by Marta Korwin, on Considerations of Family Diagnosis and Treatment. Psychiatric Institute. Baltimore, Md. Oct. 18, 1957.
- Young, I. S.: Principles of Interviewing. Seminar to Public Health Nurses of City of Baltimore. Baltimore, Md. Dec. 11, 1957.
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- Young, I. S. and Strain, B. L.: Presentation of Psychiatric Institute Program to Student Unit Placed for Field Instruction at Jewish Family and Children's Agency. Baltimore, Md. Apr. 23, 1958.
- Young, I. S.: Community Resources in the Treatment of Emotionally Disturbed Children. Member of Planning Committee. Baltimore Council of Social Agencies. Psychiatric Institute. Baltimore, Md. Apr. 23, 1958.

DEPARTMENT OF RADIOLOGY

STAFF

JOHN M. DENNIS, B.S., M.D., *Professor of Radiology and Head of the Department*
CHARLES N. DAVIDSON, M.D., *Professor of Clinical Radiology*
FERNANDO G. BLOEDORN, M.D., *Associate Professor; Head, Div. of Radiotherapy*
ROBERT P. BOUDREAU, B.A., M.D., *Assistant Professor*
CARLO A. CUCCIA, M.D., *Assistant Professor*
LLOYD M. BATES, *Assistant Professor; Radiation Physicist*
JAMES A. LYON, A.A., M.D., *Associate*
RAUL MERCADO, M.D., *Instructor*
NATHAN HYMAN, M.D., *Instructor*
LEONARD WARRES, B.S., M.D., *Instructor*
WILLIAM THOMAS, M.D., *Instructor*
ROBERT ARMSTRONG, M.D., *Instructor*

Residents:

LILBURN T. TALLEY, M.D., *Administrative Resident*
DONALD A. WOLFEL, M.D.
KIRKLAND BRACE, M.D. (*Radiotherapy only*)
RATEB KAHALEH, M.D.

Assistant Residents:

JAMES J. STOVIN, M.D.
CONSTANTIN GARMATIS, M.D.
DEREK WANGWIWATANA, M.D.

Fellow in Radiotherapy:

DAVID D. GOLUB, M.D.

ORGANIZATION AND IDEOLOGY

The Department of Radiology is one of the ten clinical departments, and is organized in two divisions: 1) Division of Diagnosis, and 2) Division of Radiotherapy. The activities of the Department of Radiology are centered in the three areas of clinical service, teaching and research. Clinical service has always been a major activity of this department, but with its reorganization into two separate divisions four years ago and with a gradually increasing staff, greater emphasis has been placed upon teaching and research activities.

TEACHING

As Radiology has become an integral part of most medical specialties, many medical educators believe that Radiology should be taught in conjunction with these specialties rather than as a separate course. In the Department of Radiology there is much integrated teaching through numerous inter-departmental clinical con-

ferences, but the staff of this Department feels that certain basic radiologic material must be presented to the students without being specifically integrated with the other medical specialties.

A brief course in roentgen anatomy is included in the first-year gross anatomy course and with the installation of the new cine-radiography equipment, it is hoped that this course can be further expanded to include certain aspects of functional anatomy. Certain physiological principles are also demonstrated by radiological means to small groups of three or four first-year students during their laboratory time in physiology.

Lecture-demonstrations of basic clinical radiologic problems are given to groups of third-year medical students. Emphasis here is not placed upon making a specific diagnosis, but rather upon recognition of the normal and the abnormal and an analysis of the abnormal from the standpoint of gross pathology.

Both the third- and fourth-year medical students have an opportunity to attend and participate in the several clinical radiological conferences held jointly with other departments. The fourth-year students, in groups of four, also serve a two-week clinical clerkship in the Department. During the past year, for the first time, the students were assigned not only to the Diagnostic Division for one week, but also to the Radiotherapy Division for the other. We had hoped that they would have an opportunity to observe the merits and limitations of Radiology in the diagnosis and treatment of disease. While assigned to Radiotherapy, however, the students were unable to participate in the examination and care of the therapy patients as much as we had anticipated, because of time, the limited physical facilities and the large number of departmental and other staff members always in attendance.

With the next four-year class, there will be no assignment to the Division of Radiotherapy, but instead these students will be assigned to the Diagnostic Division for the entire two-week period. An attempt will be made to present the basic concepts of Radiotherapy in a series of six lectures to either the third- or fourth-year classes.

RESEARCH

Great emphasis is being placed on research in the Department of Radiology. While much of it is of a clinical nature, greater stress is constantly being placed upon basic research, particularly in the Division of Radiotherapy.

Grants-in-aid have been obtained for support of three research projects currently under investigation in this Department. The titles and the sources and amount of financial support are:

<i>Source</i>	<i>Amount</i>	<i>Title</i>
American Cancer Society	10,000	Radium Implants: Development of a System of Distribution, Dosage Calculations and Rules of Application for Combinations of Geometrical Patterns of Radium Implants Applied in the Treatment of Advanced, but Still Curable Malignancy

<i>Source</i>	<i>Amount</i>	<i>Title</i>
National Cancer Institute.	\$24,988	Radiation Therapy in the Treatment of Urinary Bladder Cancer: 1) Investigation and Evaluation of Established Radiation Methods, 2) Development of New Radiation Methods
American Cancer Society, Md. Div.	4,070	Treatment of Multiple Papillomata of the Bladder by Radioactive Colloidal Isotopes

Several other research projects are currently under investigation:

Combined treatment of pre-operative cobalt-60 irradiation and surgery in the treatment of bronchogenic carcinoma. (In collaboration with the Division of Thoracic Surgery).

Combined therapy of pre-operative cobalt-60 irradiation and surgery in the treatment of carcinoma of the esophagus. (In collaboration with the Division of Thoracic Surgery.)

Combined therapy of cobalt-60 irradiation and radical surgery in advanced carcinoma of the head and neck. (In collaboration with the Division of Ear, Nose and Throat Surgery.)

Dosimetry in cobalt-60 rotation therapy.

Significance of subdural air in pneumoencephalography in infants.

Supravoltage radiography in: 1) Pneumoencephalography, 2) Chest lesions.

Evaluation of Orabilex as a cholecystographic medium.

Several other research projects are pending and will be begun as soon as installation of equipment is completed:

Laminography in the early diagnosis of bone pathology, particularly in cases of metastatic malignancy.

Correlation of radiographic, laminographic and pathologic findings in cavitary disease of lung.

Comparative study of the therapeutic value of supravoltage and megavoltage irradiation in the treatment of cancer.

Just prior to June 30, 1958, the Department of Radiology was recommended for a grant of at least \$70,000 by the American Cancer Society, Maryland Division, for physical facilities to house a Betatron, which the Division of Radiotherapy hopes to obtain through another grant, and to institute a radiobiology research program. These funds from the American Cancer Society will be matched with funds for construction of research facilities from the U. S. Public Health Service.

GRADUATE RESEARCH

The residency program in the Department of Radiology has been constantly expanding. Funds are available in the University Hospital budget for seven residents and outside support for three others has been obtained: two by the National Cancer Institute and one by the American Cancer Society. During the past year, the Department has had seven residents and one postgraduate fellow in Radiotherapy.

Besides the routine diagnostic conferences twice weekly and the weekly therapy seminars, a course in radiation physics was presented twice weekly by Mr. Lloyd Bates, Radiation Physicist. This course of 60 one-hour lectures covered all aspects of physics of diagnostic and therapeutic Radiology and nuclear medicine. It is currently planned that a course in radiation physics will be given every other year alternating with other postgraduate courses in neuroradiology, etc.

Dr. Donald A. Wolfel, Resident in Radiology, spent six months at the Radiologic Registry of the Armed Forces Institute of Pathology and this association was a great aid to members of both the attending and resident staffs through the interchange of ideas and clinical material.

During the past year several nationally known Radiologists visted the Department and presented lectures:

Dr. Gilbert M. Fletcher, Head of the Department of Radiotherapy, M. D. Anderson Hospital, Houston, Tex., visited the Department on two occasions and spoke on "Radiation Therapy in the Treatment of Head and Neck Malignancies" and "Radiation Therapy in the Treatment of Cancer of the Cervix."

Dr. Juan de Regato, Director of the Penrose Cancer Hospital, Colorado Springs, Colo., spoke at a Saturday morning seminar on "Merits of Radiation Therapy."

Dr. Robert N. Dickson, Radiologist-in-Charge, Division of Radiotherapy, Johns Hopkins Hospital, spoke on "Radioactive Isotopes in the Treatment of Cancer of the Bladder" and "Treatment of Cancer of the Esophagus and Central Nervous System."

Dr. Juan Cortes, Professor of Gastro-enterology, University of Rosario, Rosario, Argentina, discussed "Inflammatory Lesions of the Stomach and Duodenum."

STATISTICS

Diagnostic Division:

Number of Patients	44,629
Hospital	29,747
Outpatient Department	14,882
Number of Examinations	59,836
Hospital	45,386
Outpatient Department	14,450

Therapy Division:

Number of New Patients	507
Head and Neck	99
Gynecological	92
Genito-Urinary	33
General Surgery	136
Lymphomas	56
Skin and Lips	31
Benign Conditions	41
Palliative Therapy	1
Number of Treatments	10,755 patient days
Number of Radium and Radon Implantations	148
Number of Intracavitary Radioactive Installations	21

FACILITIES AND EQUIPMENT

During the past year construction of a new addition of 2,400 square feet was completed for the Diagnostic Division. Even though all of the new equipment was not completely installed, departmental activities were shifted to the new area late in June, 1958, so that the old diagnostic area could be renovated and modernized in harmony with the new area, which is immediately adjacent. Completion of the renovation is expected by January 1, 1959. The entire diagnostic area is being completely air conditioned and equipped with the most modern equipment available, valued at approximately \$250,000. Included in the new equipment are: 1) a Schonander biplane angiographic unit capable of making eight exposures per second in each of two planes, 2) a body section unit capable of making body sections in both the upright and supine positions, 3) a cineradiographic unit for making motion pictures of the fluoroscopic image, 4) a new automatic processing unit, completely processing a film in six minutes, and 5) four new fluoroscopic radiographic units complete with ceiling mounted tube stands and automatic spot film devices.

Several new pieces of equipment have been added in the Therapy Division: 1) new generator installed on the tumor and portal localizing device which was developed in this department, 2) Chaoul superficial therapy machine, 3) logotron, 4) densitometer and densitometer darkroom apparatus, 5) radioactive gold remote-control unit for intracavitary instillations, 6) Bomke radiation measuring chamber, and 7) a geiger counter. Besides this apparatus an order has been placed for another 81 milligrams of radium in needles, bringing our radium supply to 1,207 milligrams.

A small physics laboratory has been established near the Martha V. Filbert Radiation Therapy Center. A Bressler Research Grant for \$10,000 was obtained for development of a machine shop so badly needed in this department, but definite space for this shop has not been obtained.

The Martha V. Filbert Radiation Therapy Center has recently been air conditioned, as will be the conventional therapy area with the renovation of the old diagnostic area.

COMMUNITY SERVICE

The Department of Radiology renders many community services in both its Divisions. Diagnostic facilities are maintained in the Outpatient Department to render the best available radiologic diagnostic service to the medically indigent patients. Members of the Radiotherapy staff participate in the surgical and gynecological oncology clinics and assist in the care of these patients.

Because of the lack of trained Radiotherapists in this state, members of the Therapy Division have established a liaison with several other smaller hospitals in Baltimore and the State of Maryland, and serve as consultants. Most noteworthy of these is that established with the Departments of Radiology and Gynecology at the Peninsula General Hospital in Salisbury where Dr. Bloedorn and staff make regularly scheduled visits for consultative purposes.

Members of the staff also serve as consultants to many state and federal institutions and on several important national committees as listed below:

Dr. John M. Dennis:

Member, Executive Committee, American Cancer Society, Maryland Division.
 Member, Chemotherapy Adjuvant Committee, National Cancer Institute.
 Consultant, U. S. Army Hospital, Fort George G. Meade; Anne Arundel
 General Hospital, and Mt. Wilson State Hospital.

Dr. Fernando G. Bloedorn:

Member, Radiation Cooperative Study Group, National Cancer Institute.
 Assistant Professor, Radiology, Johns Hopkins School of Medicine.
 Consultant, Baltimore City, Peninsula General, Mercy, Baltimore Eye, Ear,
 Nose and Throat, Sinai and Provident Hospitals.

Dr. Carlo A. Cuccia:

Consultant, Baltimore City and Peninsula General Hospitals.

Dr. James A. Lyon:

Consultant, Perry Point Veterans Administration Hospital and Springfield
 State Hospital.

Numerous lectures and papers were presented by staff members at National meetings, as well as at many local and out-of-state institutions:

Sept. 20, 1957	J. M. DENNIS	Radiologic Analysis of Pathology, American Association for Study of Neoplastic Diseases
Oct. 3, 4, 1957	J. M. DENNIS	Diagnostic Problems of the Urinary Tract, Refresher Course, American Roentgen Ray Society, Washington, D. C.
July 2, 1957	F. G. BLOEDORN	Interstitial Radium in Oral Cavity Tumors, National Institute of Health
Sept. 20, 1957	F. G. BLOEDORN	Demonstration of Cobalt-60, American Association for Study of Neoplastic Diseases
Oct. 1, 1957	F. G. BLOEDORN	Basic Principles and Techniques of Radium Radiation, and Supervoltage Therapy, Refresher Course in Washington, D. C.
Oct. 8, 1957	F. G. BLOEDORN	Mouth and Throat Radium, Johns Hopkins Hospital
Oct. 9, 1957	F. G. BLOEDORN	Treatment of Cancer, Modern Trends, Mansfield, Ohio
Oct. 15, 1957	F. G. BLOEDORN	Mouth and Throat Radium, Johns Hopkins Hospital
Oct. 24, 1957	F. G. BLOEDORN	Radiotherapy in the Treatment of Cancer (supervoltage), Lutheran Hospital
Oct. 28, 29, 1957	F. G. BLOEDORN	Indications and Advantages for the Use of Interstitial Radium in Head and Neck Cancer, American Cancer Society, New York City
Nov. thru Dec., 1957	F. G. BLOEDORN	Forty-eight Lectures and six Courses on Radiotherapy, South America
Feb. 7, 1958	F. G. BLOEDORN	Discussion of Head and Neck Cases Treated, Baltimore City Medical Society

Feb. 11, 1958	F. G. BLOEDORN	Gynecologic Radium, Johns Hopkins Hospital
Feb. 12, 1958	F. G. BLOEDORN	Conventional and Radium Therapy, Postgraduate Course, University of Maryland
Feb. 18, 1958	F. G. BLOEDORN	Gynecologic Radium, Johns Hopkins Hospital
Mar. 20, 1958	F. G. BLOEDORN	Interstitial Radium Therapy, Yale University
Mar. 24, 1958	F. G. BLOEDORN	Skin Lesions, Baltimore City Medical Society
Mar. 26-29, 1958	F. G. BLOEDORN	Treatment of Advanced Squamous Cell Carcinoma of the Head and Neck by Interstitial Radium Implantations, American Radium Society, Hollywood, Fla.
Apr. 10, 1958	F. G. BLOEDORN	Discussion of Head and Neck Carcinoma Treated by Irradiation, Baltimore Eye, Ear, Nose and Throat Hospital
May 1, 1958	F. G. BLOEDORN	Use of Radium in Treatment of Head and Neck Tumors, DeWitt Army Hospital
May 20, 1958	F. G. BLOEDORN	Treatment of Carcinoma of the Cervix, Johns Hopkins Hospital
June 11, 1958	F. G. BLOEDORN	Treatment of Carcinoma of the Cervix, Bon Secours Hospital
Sept. 20, 1957	C. A. CUCCIA	Demonstration of Cobalt-60, American Association for Study of Neoplastic Diseases
Oct. 25, 1957	C. A. CUCCIA	Bladder Carcinoma, Sinai Hospital
Jan. 24, 1958	C. A. CUCCIA	Treatment of Carcinoma of the Cervix, Sinai Hospital
Feb. 3, 1958	C. A. CUCCIA	Pyometria Complicating Adenocarcinoma of the Uterus, Maryland General Hospital
Feb. 12, 1958	C. A. CUCCIA	Advantages and Indications of Supervoltage Therapy, Postgraduate Course
Mar. 26, 1958	C. A. CUCCIA	Advantages, Indications, Immediate Results, Cobalt-60 Irradiation, Baltimore City Medical Society
May 23, 1958	C. A. CUCCIA	Combination of Radiotherapy and Surgery in the Treatment of Carcinoma of the Cervix, Sinai Hospital
June 11, 1958	C. A. CUCCIA	Treatment of Carcinoma of the Cervix, Bon Secours Hospital
Aug. 1957	J. A. LYON	Unusual Roentgen Manifestations of Pulmonary Lesions, Carroll County Medical Assoc.
Mar. 26, 1958	L. T. TALLEY	The Advantages and Disadvantages of Supravoltage Therapy, Winchester Memorial Hospital, Winchester, Va.
Jan. 1958	L. M. BATES	Atomic Theory and Radioactivity, School of Dentistry
Mar. 1958	L. M. BATES	Physical Properties of Radium, Department of Radiology, Johns Hopkins Hospital
Mar. 1958	L. M. BATES	Calculation of Dosage from Radium Implants Using Radiographic Films, Department of Radiology, Johns Hopkins Hospital.

PUBLICATIONS BY RADIOLOGY STAFF MEMBERS

- BROWN, W. H., DENNIS, J. M., DAVIDSON, C. N., RIDIN, P. A., and FULTON, H.: Posterior Dislocation of the Shoulder, *Radiology* Vol. 69, No. 6, Dec. 1957.
- BLOEDORN, F. G.: Indications and Advantages for the Use of Interstitial Radium in Head and Neck Carcinoma (American Cancer Society Meeting, Oct. 1957, New York), *Proc. Am. Can. Soc.* (publication pending).
- BLOEDORN, F. G.: Treatment of Advanced Squamous Cell Carcinoma of the Head and Neck by Interstitial Radium Implantations (American Radium Society Meeting, Miami, Fla., Mar. 1958), *Am. J. Roentgenol.* (publication pending).
- BLOEDORN, F. G., COPELAND, M.: Carcinoma of the Head and Neck, Maryland M. J. (publication pending).
- BOUDREAU, R. P., CROSBY, R. M. N.: The Significance of Subdural Air in Pneumoencephalography in Infants, *Am. J. Roentgenol.* (accepted and publication pending).
- CUCCIA, C. A., JONES, S., CRIGLER, C. M.: Clinical Impressions in 100 Consecutive Cases of Bladder Carcinoma Treated with Supervoltage (Symposium on Cancer of the Bladder, Southeastern Section of the American Urological Association, Atlanta, Ga., Apr. 11, 1957), *J. Urol.* 79:99, Jan. 1958.
- CUCCIA, C. A.: Intracavitary and Interstitial Use of Radioactive Isotopes in Carcinoma of the Urinary Bladder (Symposium on Cancer of the Bladder, Southeastern Section of the American Urological Association, Atlanta, Ga., Apr. 11, 1957), *J. Urol.* 79:94, Jan. 1958.
- ROSE, R. G., CUCCIA, C. A.: Intracavitary Colloidal Gold in the Management of Malignant Effusions (Twelfth Annual Symposium on Fundamental Cancer Research, Radiation Biology and Cancer, M. D. Anderson Hospital, Houston, Tex., Mar. 6, 1958), *Texas Reports on Biology and Medicine* (publication pending).
- HOPE, J., O'HARA, E., TRISTAN, T. A., LYON, J. A.: Pediatric Radiography, *Medical Photography and Radiography* Vol. 33, No. 2, 1957.

RECOMMENDATIONS FOR IMPROVEMENTS

While the facilities of the Diagnostic Division have been greatly improved and expanded during the past year, those of the Division of Radiotherapy are inadequate to handle the ever-increasing patient load. Since the establishment of the Martha V. Filbert Radiation Therapy Center, the number of daily therapy cases have increased over 200% and more supervoltage therapy equipment is needed. Efforts are being made to obtain a betatron through a research grant from the National Cancer Institute. If a betatron is obtained through a research grant, then housing for it must be obtained until construction of the new Outpatient Department, where the Division of Radiotherapy will be centralized. Until that time, it is likely that the betatron will be located in facilities developed from the American Cancer Society Grant and matching funds for research facilities which we hope to obtain from the U. S. Public Health Service. This will, however, create another problem because then the therapy equipment will be scattered in three different areas.

The diagnostic facilities of the Outpatient Department are inadequate, both from the standpoint of space and equipment. It is expected, however, that this problem will be solved with construction of the new Outpatient Building.

With the increased growth of this Department, a full-time supervisor of equipment is needed. It would be the function of this individual to service the diagnostic and therapeutic equipment, render preventive maintenance on this equipment and run the machine shop for which funds, but not space, are already available. The position has been requested in the 1958-59 budget and it is hoped that the administration will look favorably upon its approval.

In no other department is equipment of such vital importance as in the Department of Radiology. While the equipment in this department is almost all new at the present time, some method should be established to maintain up-to-date modern equipment and never again allow it to reach the deplorable stage of three years ago. Heretofore, this Department has been at the mercy of the Hospital Director to purchase major equipment from the general hospital new equipment budget, which was often inadequate to support equipment of this type. It seems only logical that budgetary methods should be established so that a well-planned system can be arranged for an orderly replacement of old and worn-out equipment rather than having to replace several units at one time.

The finances of this department should be arranged in a more ethical manner. Specifically, fees collected from private diagnostic outpatients and therapy patients should be broken down into professional and service portions with the professional portion going into a departmental restricted fund to be used for the professional growth of the Department. Such an arrangement has been alluded to in the recent recommendations of the Medical Service Committee, but no definite policy has been established. Further deliberations and recommendations are needed to establish a more ethical arrangement.

DEPARTMENT OF SURGERY

During the past 12 months the Department of Surgery has continued to exist in its previously designated six divisions, *i.e.*, General Surgery, Neurologic Surgery, Orthopedic Surgery, Otolaryngologic Surgery, Thoracic Surgery and Urology. Any effort to change or expand these has encountered immediately the long-existent shortage of service, and to a lesser extent private, teaching beds which has made it impracticable to consider further such inclinations.

In re-reading the report from this Department submitted 12 months ago this same deficiency was indicated and pointed out as the most urgent problem confronting the Department and the one limiting factor in its further growth and development. A year later this deficit exists without change although the asking budget now contains a request for a few additional beds. The effects of this shortage are far-reaching; it has been impossible and unrewarding to expand or prolong the outpatient clinics in most of the surgical specialties since patients requiring admission on those services cannot be accommodated, except after long waiting periods, in the hospital; student and house staff teaching in these ambulatory patient areas is either lacking or inadequate; the inpatient services of the majority of surgical specialties is too small to offer a well rounded, wide basis for fulfillment of the teaching requirements of that service. The result of such curtailments has been greater and greater emphasis upon didactic lectures, with a few audio-visual supports, as a means of ensuring that a certain amount of knowledge is conveyed to the student about the prescribed subject. This is reminiscent of teaching at the turn of the century and cannot be long permitted or accepted in this Department without seriously impairing its standing and acceptance.

Of equal importance in the eyes of many of the Department members has been the inability to broaden the horizon of those in contact with these variously deficient divisions by the admission of patients for study, clinical research and the evaluation of newer methods of therapy; some services find it difficult indeed to admit patients for elective, corrective therapy when the demand for beds for urgent care of patients is so pressing. It must be re-emphasized that this is the most urgent problem facing this Department today.

A concomitant deficiency has been the steadily deteriorating sufficiency of efficient, competently trained nursing personnel in the Operation Room Suite. The number of graduate nurses has diminished steadily and progressively over the past several years to the point that it is seriously doubted that this area can function safely much longer with the present number of rooms. This state has far-reaching implications to the members of this Department who have looked forward to an expanded Operation Room Suite rather than to a contracted one.

It is apparent from a review of the many and varied efforts of this Department during the year that Service stands largely to the fore as its greatest accomplishment. During this period 24,971 patients were examined in the entire Outpatient Surgery area, 9,889 surgical patients were seen and treated in the accident suite of the hospital and 5,132 patients were admitted to the combined divisions and areas of the hospital for more extended and definitive surgical treatment. As an extension of its service to the State of Maryland and in furtherance of its individual training program, the Department agreed to assign two of its house officers to the hospital unit of the Maryland State Penitentiary in Baltimore. The conduct of this unit was under the direct supervision of Dr. E. H. Stewart, Associate in Surgery. Considerable efforts were expended in setting up the surgical unit at this institution. After nine months of active and satisfactory service the program was suddenly and necessarily abandoned because of inadequate financial support. During the period 197 patients were given proper surgical care. It is anticipated that a second effort will be made during the coming year, to reactivate this service on the premise that adequate support will be forthcoming. In order to increase the patient load and variety of the house officers so assigned, this experience will include also the surgical care of patients in the new hospital unit at the Crownsville State Hospital for the mentally incompetent. This form of "detached" training experience for house officers is a somewhat new departure for this Department, and will be observed closely and with interest during the coming year.

In general, the recording of reports, of committees as set up and required by the Medical Board of the Hospital, has no place in this yearly report from the Department. However, during the past year increasingly alarming epidemics of hospital infections have been reported from various institutions in the United States. Although hospitals are intended to assist in the relief of distress and suffering they have time and again served as a focus for the propagation of disease which has thwarted this purpose. The infection epidemics have involved all types of hospitalized patients but have been particularly virulent in the surgical patient. In response to our growing concern and in preparation to meet the problem should it gain ascendancy in this hospital, the Chairman of the Medical Board set up a committee under the chairmanship of Dr. A. R. Mansberger, Instructor in Surgery, and containing members from the Departments of Obstetrics and Gynecology and Medicine. In order to disseminate further the report of this committee and to indicate the seriousness with which this problem is considered the report, in part, of the committee as it pertains particularly to the surgical services is contained herein:

PREVENTION OF WOUND INFECTION

Preoperative Measures

Exclusion of the patient from exposure to patients on *Infectious Precautions*, and also *Wound Precautions* (see below), prior to surgery.

Withdrawal of nurses, aides, orderlies, staff, residents, interns, students and visitors carrying furuncles, other infected wounds, or respiratory infections, from duty involving contact with patients.

Preparation of the patient's skin the night before operation by a five-minute scrub

with hexachlorophene soap following wet shave; inspection by resident on call under good light.

Sterilization of razors after use.

Operation Room Procedures

Operation Room Uniforms must be worn only in the operation rooms, and their use outside should be discontinued except in an emergency, to avoid carrying contamination to the operating suite. (Insistence on dress of another color (whites) for use in the hospital proper.)

Shoes for *exclusive* use in the operation room should be obtained by all personnel and kept clean.

Masks should be changed between cases.

Scrubbing time should be extended to ten minutes (initially) by the clock, and monitored by the senior surgeon. Hands should be scrubbed five minutes between every case.

The operation team should be *gloved* by the nurse.

Jackets to protect the back should become uniform practice.

All personnel should be encouraged to report breaks in TECHNIQUE. This can only be accomplished with the complete support of the responsible surgeon. The scrub nurse should be impressed with her own responsibility in this connection, and be empowered to require any staff surgeon or resident to rescrub and regown, or any instrument table to be set up again.

The practice of *disposal of soiled sponges* onto the floor should be discontinued. These should be deposited by the suture nurse into a receptacle convenient to her to be transferred by the circulator to a sheet for counting.

When adequate operating space becomes a reality, consideration should be given to periodic closing of operation rooms in rotation, for thorough cleansing.

Consideration should be given to the installation of ultra-violet lights in all operating rooms and corridors.

Operation techniques need not be reiterated, though commonly ignored breaks are:

1. Failure to scrub prerequisite time.
2. Failure to reglove immediately after tear.
3. Reuse of glove and gown drums without rescrubbing.
4. Contamination by the surgeon's or the assistant's backs especially of adjacent personnel or the sponge basin.
5. Careless disposal of instruments soiled in the gastrointestinal tract or elsewhere. A more rigorous dirty basin technique is urgently needed.

Preparation of the patient's skin at present seems satisfactory. The individual scrubbing the patient should glove himself without gowning, and rescrub three minutes before entering the operating team.

Other Measures

The operation suite should no longer be used as a thoroughfare for rounds and other passage.

Obviously, screening of personnel working in the operation rooms for infectious processes is of paramount importance. This is poorly accomplished at present.

When adequate operating space becomes a reality, consideration should be given to designation of an O. R. for Septic cases.

Periodic survey of sterilization procedures in the operation room should be carried out, including chemical sterilization procedures now in use. This should be repeated at stated intervals, without announcement of the exact date.

It is undesirable for residents to dress infected or draining wounds in the early morning prior to the beginning of the operation schedule. Such dressings should either be postponed, or assigned to a man who will not be required to hurry through in order to make a schedule deadline.

ISOLATION PROCEDURES

Where resistant staph. infections are encountered, the following are recommended:

1. Patients with a severe wound infection or with staphylococcal pneumonia should be placed on *Infectious Precautions* and carried in the same fashion as an infection disease. The hospital should be prevailed upon *not to admit* any patient into the same semi-private unit until the process is under control. The ward services should carry such patients in the space normally occupied by two beds.
2. It is recommended that a separate category of precautions, tentatively titled *Wound Precautions*, be established to include any patient with a severely infected wound. Procedures for this category are:
 - a. Separate handling of all bed linen and blankets to be placed in a clearly marked laundry bag for steam sterilization before being introduced into the hospital laundry system.
 - b. Basins containing respectively soap and water, and 70% alcohol (by weight) to be used after all nursing procedures involving contact with the patient or his bed, and to be changed every eight hours.
 - c. The use of gloves by nurses and residents for all dressing changes (*i.e.*, hot soaks).
 - d. Disposal of all soiled dressings in wax paper bags, marked Septic, and their eventual deposition into closed cans on each nursing unit.
 - e. The use of a special tray for dressings made up by CSR for this purpose, containing gloves, gauze applicators, a simple set, a wax paper Septic bag, and a cotton satchel for the return of non-expendable supplies. Nothing used in the patient's dressing should be returned to the dressing cart. Tape should be left at the patient's beside (stained across the top edge to avoid error?).
 - f. It is doubted that special precautions are needed with diet trays, though it is recommended that patients wash carefully, under the nurse's supervision, before eating.
 - g. No precautions with excreta are needed, though patients with furuncles of buttocks should use the bedpan and special provisions for cleaning of tubs are necessary.

ITEMS OF IMPORTANCE

During the past summer ten student fellowships were offered in the Department. The following students participated in these:

Mr. G. R. Baumgardner	Mr. A. C. Holmes
Mr. Robert Cranley	Mr. Frank Kriz
Mr. R. L. Diener	Mr. Larry Pinkner
Mr. Richard Erickson	Mr. Charles Silberstein
Mr. Richard Flynn	Mr. Ward Kurad

Seven of these were in Clinical areas while three were in the Experimental Laboratory. Two of these men, Mr. Silberstein and Mr. Holmes, continued their participation in research problems in the Divisions of Urology and Neurosurgery during the ensuing school year on a part-time basis.

Six student fellows will join the Department in the coming summer months. The following students will participate in research projects during this interim:

Mr. A. C. Alevizatos (General Surgery)
Mr. M. L. Friedman (General Surgery)
Mr. K. M. Green (Cardio-Pul. Lab.)
Mr. M. S. Kleinman (Otolaryngology)
Mr. R. H. Roig (Otolaryngology)
Mr. R. H. Young (General Surgery)

The Department considers such experiences of superlative value in the future development of outstandingly competent physicians.

In the past summer a small electronics workshop was set up in the Bressler Research Laboratory area and placed under the direction of Mr. Morris Tischler and supported through the Dean of the Medical School. The purpose of this unit was considered: a) the designing, developing and constructing of instruments to be used for medical care and research, b) to modify or redesign presently available commercial equipment to meet specific applications, and, c) to investigate special problem areas where new electronic or electro-mechanical devices may be applied. To date, a prototype cardiac pacemaker has been developed and placed in operation. A commercial oximeter has been redesigned and placed in operation, an Ekg amplifier has been constructed, an oscilloscope redesigned, an electronic switch for simultaneous Ekg and blood pressure observation constructed and placed in operation and an Ekg tester for skin resistance constructed. Such apparatuses as a cardiac monitor, Galvanic measuring device for auditory testing and a recorder for spirometer are in various stages of completion. Support by the Departments of Medicine and Psychiatry in the more recent months has made it possible for Mr. Tischler to conduct a course in basic medical electronics for staff and house officers. It seems appropriate that some serious thought should be given in the near future towards the serious development of an electronics laboratory on this campus.

The Department was pleased to receive notice from the Secretary of the American Medical Association early last summer that it was approved for both straight and mixed (Surgery-Obstetrics and Gynecology) internships. The Notification came too late to permit wide publication of this approval but it is anticipated that shortly such house men will become members of our staff.

During the past year two small donations only were received by the Department :
 The Liberty Hills Women's Club, Baltimore, Md. \$ 70.00 Cancer Research
 Mr. Richard E. Koester, Baltimore, Md. 150.00 House Officer Education

The largest fund available to the Department is that accumulated through health insurance payments for service patients. During the past 12 months this has amounted to some \$28,000. It has made possible the fulfillment of the many small needs as well as some of the rather major physical changes required in the entire Surgery Department. Of this year's accumulation in this fund 34.8% was required for the salaries and wages of house officers and student fellows needed in the Department's training program and not supplied by the hospital budget. Approximately 15% of this fund was required for physical changes and supplies in the hospital and dispensary, while some 21% supplied equipment, chemicals and other materials to the research laboratory. These were the major expenditures from this fund.

During the past year a committee of the medical school has been studying the Graduate Education program of Medical students with the goal of offering a combined M.D.-Ph.D. program to properly qualified, interested and selected students in the first, second or third year of Medical School Program.

This Department has had under consideration for some time the desirability of affording surgical house officers the privilege of attaining a Master's Degree in Surgical Science during the period of training in the University Hospital. The details of this program are not sufficiently advanced as yet for formal presentation but it is hoped that such a program can be placed in effective practice in the future.

GENERAL SURGERY

This is still the largest Division in the Department and carries the largest surgical case load in the hospital, the Accident Room and in the Outpatient Clinic. Because of this large patient load it must assume the greatest responsibility in the teaching and training of medical students and house officers. Moreover, because the basic concept of the surgical care of most disease processes, including neoplasia, trauma and metabolic disease, are so readily applicable to patients in other surgical disciplines, it is responsible in a large part for the adequate preparation of house officers for entrance into the other fields of surgical interest. These instructional duties are fulfilled by two full-time staff members and a larger group of part-time surgical teachers who have given freely and to variable degrees of their time, interest and loyalty. The compensation of these devoted members of the staff is measured largely in the satisfaction of good and thoughtful patient care and the participation in the proper upbringing of the young surgeons into whose hands the residents of the state and country are to be entrusted for their future surgical care.

A continuing effort and enthusiasm has been apparent in the teaching and training program in this Division, and to some extent in its research program, toward a broadened concept that the surgeon must deal, and therefore be competent in, not only the manner of disease amenable to direct surgical treatment but also to disease commonly considered the province of other non-surgical disciplines. This has been accomplished in staff and teaching conferences by a greater interdepartment participation but also by the assigning of surgical house officers on several occasions for

participation and instruction during a portion of their surgical year, to these non-surgical areas. Such participation has been possible only through the cordial approval of other department and section heads. The Division was pleased to participate again this year as one of the cancer training centers for young physicians as set up under the National Cancer Act. Dr. Everard F. Cox, Assistant Resident in Surgery, was the recipient this year of the training grant from the National Cancer Institute provided for this purpose.

Some minor changes were made again in the student teaching program in this Division.

The Senior student program was confined almost exclusively to the University Hospital area. In the preceding year a portion of this year's work was given at another hospital but this proved an uneven and unsatisfactory arrangement. During the academic year just completed students of this class spent one-half of their time a) on a service or private general surgery ward and b) the remaining half in a surgical specialty of their choice. In general, this seemed a good plan of instruction except for the deficiency in knowledge of the course of disease and its treatment as it appears in the other surgical disciplines.

Correction of this deficit has not been feasible since each of these students has acted, in turn, as surgical extern during the time he has spent on both the general and the specialty service. Some solution of this dilemma will be sought before the beginning of the next school year.

The Senior students this past year as in the preceding years have shown a mature, reasonable sense of responsibility and their close participation in patient care has seemed worthwhile and well within their capacity.

The Junior student teaching program has not varied greatly from that of the preceding year in its source of patient contact. In its variety of opportunity for learning it has improved by virtue of the larger patient loads in the orthopedic and urologic, and particularly in the otolaryngologic clinic areas. This has resulted in some practical enhancement of the student's knowledge and ability in patient care in these areas.

The audio-visual committee of the Department has again prepared weekly moving picture demonstrations for both upper classes assigned to the Department. These were presented in a less suitable area in the hospital this year and were, in general, not well attended so that their value was minimal.

In the coming academic year the committee has decided to present a short series of films on basic principles in surgery which will be shown over and over again to each group of students while they are assigned in the general surgery clinic area. This will likely require that the Department keep these films on permanent file. There exists some doubt of the effectiveness of this method of teaching and a serious attempt will be made in the coming year to determine whether it will remain in the teaching program as a worthwhile effort.

The Outpatient Department, an important area for teaching and patient care in the General Surgery Division, has undergone little physical change in the past twelve months. However, a greater intensification of teaching effort and discipline is apparent in the area and large credit for this must go to the men responsible

for the day-to-day supervision of this area. Greater coordination in the teaching plan is needed between the University Staff and the Staff at Mercy Hospital, where the student spends one-third of his time. In the past year some considerable reduplication of effort has been apparent with its attendant loss of total teaching coverage.

The largest need for the outpatient area, aside from total replacement of its antiquated quarters, is a unit record system common throughout the entire medical area (to include both private and service patients as well as inpatients, outpatients and accident room patients). The institution of this system has been under consideration for years without serious appreciable progress. And yet, at least 50% of the teaching value of a patient, previously hospitalized and returning to the clinic, is lost to both house officer and student by this lack. This loss is above and beyond the lack of good post-hospitalization care that can be given patients whose prior course is unknown to the physician. A second need in this area is for a more efficient screening system in order to expedite the individual patient's transit time to the appropriate clinic area.

GIFTS

Abbott Laboratories . . .	\$1,000.00	The Effect of Tranquilizer Drugs in Shock (Dr. Michaelis)
Wallace Laboratories . .	2,200.00	The Effects of Meprobromate upon Liver & Brain Intracellular Enzymes (Dr. Michaelis)

GENERAL SURGERY

Residents:

JOHN B. CODINGTON
SADREDIN MUSAVI
HENRY G. REEVES
ROGER D. SCOTT

Assistant Residents (1 yr.):

OTTO C. BEYER
JAMES M. CHASE, JR.
JAMES T. ESTES
HERMAN H. GLASSMAN
WILLIAM S. KISER
JOSEPH S. McLAUGHLIN
FRANCIS ODA
ELWYN A. SAUNDERS

Assistant Residents (3 yr.):

MICHAEL J. FOLEY
BEVERLY L. REYNOLDS

Assistant Residents (2 yr.):

JOHN M. ALLEN
HASKELL H. BASS
EVERARD F. COX

RESEARCH PROJECTS

Many of the required facilities for the surgical research laboratory have been completed and the several research projects referred to in the preceding yearly report are under way:

The Effect of Hemorrhagic Shock on the Intracellular Respiratory Enzyme System (Dr. Buxton, Dr. Michaelis)

The succinic oxidase of liver and brain slices, before and after irreversible

hemorrhagic shock are being studied and compared at the moment. A highly significant decrease in this enzyme is noted in livers of dogs in hemorrhagic shock.

Mitochondrial preparation from rat heart and brain tissue were obtained after drum, hemorrhagic and tourniquet shock. The synthesis of high energy compounds in the preparations is significantly decreased.

Glycolysis in the brains of drum shocked rats, with and without the prior administration of tranquilizing drugs, is decreased.

*Humoral Factors Injurious to the Capillary Vascular System
in Traumatic and Hemorrhagic Shock (Dr. Greisman)*

The effects of bacterial endotoxin on rabbits exposed to septic and aseptic hemorrhagic shock have been and are being studied. The results are to be published shortly.

Strangulation Obstruction of the Small Bowel (Dr. Mansberger)

The origin and utilization of ammonia in strangulation obstruction (submitted for publication).

The toxicity of peritoneal fluid in venous small bowel strangulation.

Current experimental work is centered on attempts to devise a quantitative bioassay for endotoxins in peritoneal fluid.

*The Effect of High Energy Phosphates on Wound Healing
(Dr. Beverly Reynolds* and Dr. John Codington*)*

The initial publication of these studies is in press and relates the effects of adenosine 5-monophosphate upon wound healing in normal rats and in rats treated with various uncoupling agents to depress the rate of wound closure.

*The Role of RNA and DNA in Cancer Induction
in Mice (Mr. Malcolm Friedman)*

This project is just starting through the efforts of a Sophomore student fellow.

In addition to the studies reported above, several other departments have been using the Animal Operation Rooms for their projects:

Dr. Leonard Scherlis: Myocardial Uptake and Coronary Sinus Arterial Gradients of Quinidine Gluconate.

Dr. Samuel Revell: A Study of Technics for the Experimental Production of Pyelonephritis.

Dr. Eiichi Otomo (Neurology): A Study of Spinal Cord Circulation.

Dr. Edgar Berman (Sinai Hospital): Cardiac Transplantation.

Clinical Studies Now in Progress in the Division

Leiomyoma and Leiomyosarcoma of the Gastrointestinal Tract (Dr. Buxton).

The Incidence of Mammary Node Metastasis in Carcinoma of the Breast (Dr. Cox**).

Surgery and Chemotherapy of Cancer (Drs. Mansberger and Buxton).

* Surgical House Officers.

** Cancer Trainee.

The Division is participating in the nation-wide program sponsored by the N.I.H. in the cooperative study to determine the effectiveness of Chemotherapeutic agents when administered at the time of operation upon patients with carcinomas of the stomach, colon and breast. It has been possible to contribute 10 patients to the colon-cancer study and a lesser number of patients with carcinoma of the stomach. The study on breast cancer has just been initiated.

F.S.H. Determinations As an Index to the Treatment of Patients with Breast Cancer (Dr. Hull).

SPECIAL ACTIVITY

The Department of Surgery was host to the Southern Surgeons Club on Tuesday, May 6, 1958, and the following program was presented:

- "Dynamic Axial Brain Stem Distortion in Increased Intracranial Pressure,"
Raymond K. Thompson, M.D., and Steven Malina, M.D.*
- "The Use of Radio-Active Diodrast Renograms in the Evaluation of Renal Function," John D. Young, Jr., M.D., Joseph B. Workman, M.D., and Charles Silberstein, B.S.
- "Toxic Factors in Experimental Strangulation Obstruction," Arlie R. Mansberger, Jr., M.D., R. Adams Cowley, M.D., and Robert W. Buxton, M.D.
- "Origin and Utilization of Ammonia in Experimental Hemorrhagic Shock,"
R. Adams Cowley, M.D., John R. Hawkins, M.D., and Samuel P. Bessman, M.D.
- "Wound Healing: A Study of the Response of Injured Tissues to the Coenzyme Adenosine Monophosphate," Beverly L. Reynolds, M.D.,* John B. Codington, M.D.,* and Robert W. Buxton, M.D.
- "Investigations of Hematoporphyrins As an Adjunct to Cancer Therapy," H. Patterson Mack, M.D.
- "The Prolonged Use of Glucagon in Glycogen Storage Disease," Joseph McLaughlin, M.D.,* Robert Yin, M.D., and Samuel P. Bessman, M.D.
- "Pre-Operative Evaluation of Pulmonary Function As a Criterion of Operative Risk," Bruce Armstrong, M.D.
- "The Mechanics of the Knee Joint," Allen F. Voshell, M.D.
- "Some Experiences with Preparations and Anesthesia for Intracranial Surgery in Children Under 16 Months of Age," Robert M. N. Crosby, M.D., and Paul R. Hackett, M.D.

LECTURES

Dr. Robert W. Buxton:

- "Diagnosis and Treatment of Acute and Chronic Major Venous Occlusions,"
13th Annual Postgraduate Course, University of Kansas Medical Center,
Jan. 20, 1958.
- "Portal Hypertension," Rochester Academy of Medicine, Rochester, N. Y.,
Feb. 4, 1958.

* Surgery House Officer.

- "What's New in Surgery" (Panel Discussion), Baltimore City Medical Society, Mar. 7, 1958.
- "Thyroid Disease in Children," Peninsula Academy of Medicine, Newport News, Va., Mar. 19, 1958.
- "Thyroid Disease in Children," Connecticut State Medical Society, Stratford High School, Stratford, Conn., May 1, 1958.
- "Parotid Tumor," Fort Howard VA Hospital, June 13, 1958.
- "Cardiac Arrest," Alumni Day Scientific Session, University of Maryland Medical School, June 5, 1958.
- "Thyroid Diseases in Children," Provident Hospital, Baltimore, Md., May 16, 1958.

Dr. Arlie R. Mansberger:

- "Experimental Observations in Mechanical and Thermal Trauma," Walter Reed Army Institute of Research, Washington, D. C., Sept. 1957.
- "Medical Moderation," Panel Discussion, Woodmoor PTA, Jan. 1958.
- "The Toxic Nature of Peritoneal Fluid in Experimental Venous Strangulation Obstruction," Southern Surgeon Club, Baltimore, Md., May 9, 1958.
- "Occlusion Diseases of the Peripheral Arteries—Diagnosis and Management," Provident Hospital, House Officers' Alumni Association, Baltimore, Md., May 15, 1958.

Dr. E. Roderick Shipley:

- "Telecasting," Round Table Discussion, Chicago, Nov. 1957.
- "Modern Education Technique," Telecast, Washington, D. C., Oct. 1957.

Dr. Patrick C. Phelan, Jr.:*

- "Carcinoma of the Gallbladder," presented at meeting of the Cancer Section, Baltimore City Medical Society, May 14, 1958.

Dr. William B. Rever:*

- "Medical Ethics," presented at the Newman Club, Johns Hopkins Hospital, Sept. 1958.

SPECIAL LECTURE

- "Athletic Injuries," Sir Walter Mercer, Professor of Orthopedic Surgery, University of Edinburgh, Edinburgh, Scotland, May 17, 1958.

AUDIO-VISUAL PROGRAM FOR SENIOR AND JUNIOR MEDICAL STUDENTS

- | | |
|----------------|---|
| Sept. 25, 1957 | Coarctation of the Aorta. |
| Oct. 2, 1957 | Thoraco-Abdominal Nephrectomy. |
| Oct. 16, 1957 | Ligation and Stripping Treatment of Varicose Veins. |
| Oct. 23, 1957 | Uretero-intestinal Anastomoses. |
| Oct. 30, 1957 | Acute Abdominal Injuries. |

* Mercy Staff.

Nov. 6, 1957	Subdural Hematoma.
Nov. 13, 1957	Managing Fresh Wounds of Violence.
Nov. 20, 1957	Patent Ductus Arteriosus.
Dec. 4, 1957	Ruptured Lumbar Discs.
Dec. 11, 1957	Operative Treatment of Hirschsprung's Disease.
Dec. 18, 1957	Abnormalities of the Extrahepatic Biliary Ductal System.
Jan. 8, 1958	Absorbable Sutures.
Jan. 15, 1958	Tr. Carcinoma of Breast.
Jan. 22, 1958	Commissurotomy for Mitral Stenosis.
Jan. 29, 1958	Surgery of the Aged.
Feb. 5, 1958	Reduction of Intussusception by Barium Enema.
Feb. 12, 1958	Pneumonectomy.
Feb. 19, 1958	Treatment of Simple Head Injuries.
Mar. 5, 1958	Pancreatic Cysts.
Mar. 12, 1958	Hernioplasty.
Mar. 19, 1958	Tendon Injuries.
Mar. 26, 1958	The Operative Treatment of Chronic Stasis Ulcers.
Apr. 2, 1958	Obstructive Jaundice Complicated by a Diaphragmatic Hiatal Hernia.
Apr. 9, 1958	Cholecystectomy.
Apr. 16, 1958	Intestinal Obstruction.
Apr. 23, 1958	Anterio-lateral Approach for Carcinoma of Mediastinum.
Apr. 30, 1958	Adenomatous Polyps of the Colon and Rectum.
May 7, 1958	Immediate Postoperative Care.
May 14, 1958	Peripheral Vascular Disease.
May 28, 1958	Preoperative Care.
May 21, 1958	Facial Injuries.

PUBLICATIONS BY SURGERY STAFF MEMBERS

- BUXTON, R. W.: Progress in Surgery—1957, American Annual, Oct. 1957.
- BUXTON, R. W.: Cylindromatous Salivary Gland Tumors, Maryland M. J. (in press).
- BUXTON, R. W., REYNOLDS, B. L.,* and CODINGTON, J.*: Wound Healing, Surgery (in press).
- BUXTON, R. W.: Volvulus of Colon, Am. Surg. (in press).
- YEAGER, G. H.: Thyroiditis, South. M. J. 50:1005, Aug. 1957.
- SHIPLEY, E. R.: The Multiple Injured Patient, Maryland M. J. (in press).
- ADAMS, T. R.: Gastrojejunal Fistula, Am. Surg. 24: No. 5, May 1958.
- MANSBERGER, JR., A. R., OCHSNER, JR., E. W. A. and JACOB, S. W.: A New Preparation for the Study of Experimental Shock from Massive Wounds. I. Standardization, Surgery 43: No. 5, May 1958.
- MANSBERGER, JR., A. R., OCHSNER, JR., E. E. A., JACOB, S., OPPENHEIMER, J. H. and GILLETTE, R. W.: A New Preparation for the Study of Experimental Shock from Massive Wounds. II. Evaluation of Various Therapeutic Regimens with Special Reference to the Role of Antibiotics, Fluid Replacement, and Debridement, Surgery 43: No. 5, May 1958.
- MANSBERGER, JR., A. R., OPPENHEIMER, J. H. and GILLETTE, R. W.: A New Preparation for the Study of Experimental Shock from Massive Wounds. III. The Effect of Local Wound Treatment on Survival Time, Surgery 43: No. 5, May 1958.

* Surgical House Officers.

- OPPENHEIMER, J. H., KNECHT, A. T., MANSBERGER, JR., A. R., GILLETTE, R. W. and PON, R. S.: A New Preparation for the Study of Experimental Shock from Massive Wounds. IV. The Effect of Penicillin and Streptomycin on the Quantitative Bacteriologic Flora of the Wound, *Surgery* 43: No. 5, May 1958.
- GILLETTE, R. W., OPPENHEIMER, J. H., MANSBERGER, JR., A. R., JOHNSTON, C. E. and KOOKOOTSEDES, G. J.: A New Preparation for the Study of Experimental Shock from Massive Wounds. V. Changes in Some Serum Electrolytes and Nitrogenous Fraction Values, *Surgery* 43: No. 5, May 1958.
- GILLETTE, R. W., MANSBERGER, JR., A. R., OPPENHEIMER, J. H., CALDWELL, B. F. and NEFF, E. G.: A New Preparation for the Study of Experimental Shock from Massive Wounds. VI. Paper Electrophoretic Studies of the Serum Proteins, *Surgery* 43: No. 5, May 1958.
- PACKER, L., MICHAELIS, M. and MARTIN, W. R.: Effect of Shock on Rat Heart and Brain Mitochondria, *Proc. Soc. Exper. Biol. and Med.* 98: 164-167, 1958.
- MICHAELIS, M., VERSTER, F. DE B. and FRAZIER, T.: The Combined Effects of Atropine and of DFP upon the Lethal Dosage of Sodium Pentobarbital in Rabbits, *J. Pharmacol. Exper. Therap.* (in press).

Resident Publications:

- REYNOLDS, B. L.*, CODINGTON, J. B.* and BUXTON, R. W.: Wound Healing, *Surgery* (in press).
- CODINGTON, J. B.* and PLATT, M.*: Hydrops of Gallbladder, *South. M. J.* (pending).
- CODINGTON, J. B.* and COWLEY, R. A.: Complete Intrathoracic Goiter Simulating an Aneurysm of the Ascending Aorta, *J. A. M. A.* 167: No. 4, May 24, 1958.
- MUSAVI, S.*: Torsion of the Gallbladder (in preparation).
- ALONSO-LEJ, F.,** REVER, JR., W. B. and PESSAGNO, D. J.: Congenital Choledochal Cyst (in preparation).
- ALONSO-LEJ, F.: Salpingolithiasis Simulating Acute Appendicitis, *Bull. School Med., Univ. Maryland* (in press).

OPERATIONS, UNIVERSITY HOSPITAL—GENERAL SURGERY

	<i>Private</i>	<i>Clinical</i>
<i>Thorax:</i>		
Thoracotomy for trauma	0	0
Repair diaphragmatic hernia	4	0
Other	1	5
	5	5
<i>Breast:</i>		
Biopsy or excision of lesion	62	41
I & D abscess	16	4
Simple Mastectomy	11	4
Simple Mastectomy with axillary dissection	1	2
Radical Mastectomy	12	24
Oophorectomy for carcinoma of the breast	1	4
	103	79
<i>Stomach and Duodenum:</i>		
Gastrectomy—total	2	0
Gastrectomy—partial	23	29
Gastrectomy—partial with vagotomy	0	10
Biopsy of stomach	0	0
Local excision of lesion of the stomach	0	2
Gastrostomy	2	4

* Surgical House Officer.

** Mercy Surgical House Officer.

OPERATIONS—GENERAL SURGERY (Continued)

	<i>Private</i>	<i>Clinical</i>
Gastrotony	0	3
Gastrorrhaphy	0	0
Closure of perforation of duodenal ulcer	6	9
Vagotomy (alone) (Postgastroenterostomy)	0	0
Gastroenterostomy	7	1
Gastroenterostomy with vagotomy	1	0
Jejunostomy	0	0
Others	0	1
	41	59

Stomach and Esophagus:

Esophagogastrectomy	1	0
Esophagectomy	0	0
Excision of diverticulum	0	0
Closure of perforation of esophagus	0	0
Others	1	0
	2	0

Spleen:

Splenectomy for hypersplenism	0	2
Splenectomy for rupture of spleen	2	3
Others	0	0
	2	5

Gallbladder:

Cholecystectomy (only)	75	55
Cholecystectomy and choledochotomy	19	6
Cholecystostomy	0	1
Liver Biopsy (only)	0	1
Suturing of the liver	0	1
Hepatectomy (left)	0	1
	94	65

Secondary Biliary:

Cholecystectomy	0	0
Choledochostomy	3	1
Choledochoplasty	0	0
Choledochoduodenostomy	2	1
Others	1	0
	6	2

Pancreas:

Biopsy (only)	0	0
Cholecysto—or choledochoduodenostomy or enterostomy	1	3
Pancreatectomy	1	0
Pancreaticoduodenostomy or enterostomy	0	0
Pancreato lithotomy	1	0
Marsupialization of cyst of	1	0
Drainage pancreatic abscess	1	0
Excision of pancreatic fistula	1	0
	6	3

OPERATIONS—GENERAL SURGERY (Continued)

	Private	Clinical
<i>Retroperitoneal Tumors:</i>		
Biopsy of	2	0
Excision of	0	0
	2	0
<i>Small Intestine:</i>		
Lysis of adhesions (intestinal obstruction).....	5	22
Resection for gangrene (secondary to mechanical obstruction).....	5	8
Enteroenterostomy or enterocolostomy.....	2	6
Closure of fistula (simple or enterocutaneous).....	0	0
Revision of ileostomy.....	0	0
Closure of perforation.....	0	2
Noble Procedure.....	0	1
Intussusception, reduction of.....	2	3
Others	1	3
	15	45
<i>Colon and Rectum:</i>		
Abdominoperineal resection	5	4
Colectomy, left (anterior resection).....	10	15
Colectomy, transverse	0	2
Colectomy, right	8	9
Total colectomy to the sigmoid.....	0	1
Colostomy construction	7	10
Colostomy closure	2	3
Colostomy revision	0	0
Colectomy, partial (wedge resection).....	1	4
Colotomy (local excision of polyps, etc)	6	5
Total colectomy	0	0
Perineal resection	1	0
Cecostomy	0	6
Others	1	2
	41	61
<i>Appendix:</i>		
Appendectomy	149	65
Drainage of appendiceal abscess.....	3	4
	152	69
<i>Adrenal:</i>		
Partial excision	1	0
Total excision	0	0
	1	0
<i>Abdominal Wall:</i>		
Inguinal herniorrhaphy	204	140
Femoral herniorrhaphy	5	4
Epigastric herniorrhaphy	2	2
Umbilical herniorrhaphy	9	34
Ventral herniorrhaphy	14	15
Secondary suture of dehiscence.....	1	0

OPERATIONS—GENERAL SURGERY (Continued)

	<i>Private</i>	<i>Clinical</i>
Lumbar herniorrhaphy	0	1
Diaphragmatic herniorrhaphy (via abdominal approach)	2	0
Others	1	2
	238	198

Ano-Rectal:

Hemorrhoidectomy	69	39
Fissure-in-ano excision	9	4
Fistula-in-ano excision	12	22
Pectinotomy	1	0
Anoplasty	1	2
I & D perianal abscess	10	12
Polyp removal (rectal)	4	4
Biopsy or sigmoidoscopy in O.R.	0	1
Others	2	10
	108	94

Skin and Subcutaneous Tissue:

Local excision lesion of skin or subcutaneous tissue	39	19
Wide excision of lesion (Melanoma, etc.)	11	9
Debridement of wound	5	8
Suture of laceration	7	7
Secondary closure of wound	1	3
Skin graft and reconstructive procedure	15	29
Burn dressing	0	1
Skin graft	12	49
Muscle biopsy	2	1
Skin biopsy	0	1
Implant cobalt	2	2
Drainage of superficial abscess	14	21
Incision and drainage of pilonidal abscess	1	0
Excision of pilonidal sinus or cyst	18	1
Bone marrow biopsy	0	0
Others	4	5
	131	156

Lymphatic System:

Biopsy (not abdominal)	7	8
Radical excision (except neck)	2	1
	9	9

Arterial System:

Aortic resection for aortic graft	0	0
A.V. Fistula	0	3
Peripheral arterial graft	2	6
Endarterectomy	0	3
Scalenectomy	1	0
Embolectomy	0	1
Exploration of artery	0	1
Ligation of artery	0	2

OPERATIONS—GENERAL SURGERY (Continued)

	<i>Private</i>	<i>Clinical</i>
Thrombo endarterectomy	0	1
Sympathectomy (not for hypertension).....	7	17
Endoaneurysmorrhaphy	1	0
Aortogram	0	10
Peripheral arteriogram	1	5
Others	0	2
	12	51
<i>Venous System:</i>		
Portacaval anastomosis	2	1
Splenorenal anastomosis	0	0
Ligation and stripping of saphenous vein.....	72	28
Ligation of saphenous vein.....	4	6
Local excision of veins.....	2	2
Transgastric ligation for bleeding varices.....	1	1
	81	38
<i>Hand and Tendons:</i>		
Incision and drainage of space abscess.....	0	2
Exploration of tendon sheaths.....	3	0
Primary tenorrhaphy	9	5
Repair of peripheral nerve.....	1	0
Tendon Transplant	1	0
Others	0	4
	14	11
<i>Genitourinary:</i>		
Circumcision	4	2
Cystoscopy	0	0
Hydrocelectomy	2	2
Nephrectomy or renal exploration.....	0	0
Vasectomy	2	0
Orchidopexy	0	0
Biopsy Testis	1	1
Others	6	1
	15	6
<i>Orthopedic and Extremities:</i>		
Amputation, mid-thigh	5	21
Amputation, tibial	7	7
Amputation, other type, leg.....	0	2
Amputation, foot	2	4
Amputation, toe	7	11
Amputation, arm	1	0
Amputation, finger	3	2
Hemipelvectomy	0	0
Revision stump	0	1
Open and closed reduction of fracture in Operating Room.....	29	7
Excision Baker's Cyst.....	3	5
Smith-Peterson Nailing	1	0

OPERATIONS—GENERAL SURGERY (Continued)

	<i>Private</i>	<i>Clinical</i>
Excision, ganglion of extremity.....	8	2
Others	20	5
	96	67
<i>Thyroid:</i>		
Total thyroidectomy with neck dissection.....	0	0
Total thyroidectomy	3	2
Total lobectomy	3	1
Subtotal thyroidectomy	29	20
Biopsy of thyroid.....	2	0
Others	0	1
Parathyroid adenoma	0	0
	37	24
<i>Infection:</i>		
Drainage of subphrenic abscess.....	1	0
Drainage of subhepatic abscess.....	1	0
Drainage of pelvic abscess.....	0	0
Drainage of intra-abdominal abscess.....	0	0
Others	1	5
	3	5
<i>Miscellaneous:</i>		
Exploratory laparotomy with diagnosis not made.....	0	1
Exploratory laparotomy, stab wound.....	0	13
Exploratory laparotomy, gunshot wound.....	0	4
Others	9	16
	9	34
<i>Head and Neck:</i>		
Branchiogenic cyst removal	0	0
Commando	1	0
Radical neck dissection	1	2
Mandible resection, partial.....	1	2
Excision of cervical mass (Tumor mass).....	3	1
Excision lesion of accessory sinus.....	0	0
Excision lesion of gingiva	0	1
Excision lesion of mouth of lip.....	2	0
Excision lesion of nose.....	1	0
Excision lesion of palate.....	0	1
Excision lesion of parotid gland.....	7	2
Excision lesion of submaxillary gland.....	5	0
Hemiglossectomy	0	0
Laryngectomy total	0	0
Laryngectomy partial	0	0
Laryngoscopy (biopsy)	0	0
Excision of thyroglossal cyst.....	1	3
Closure of pharynstoma.....	1	0
Others	1	2
	24	14

OPERATIVE DEATHS - GENERAL SURGERY

CLINICAL SERVICE

Cancer: 8

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
035-6-70	M.G.	Carcinoma of the breast	Exploratory laparotomy with omental biopsy	Peritonitis	No
151-6-68	J.M.	Carcinoma of the colon	Cecostomy transverse colostomy	Peritonitis due to sigmoid perforation	Yes
120-7-40	F.J.	Carcinoma of the esophagus	Gastrostomy	Carcinomatosis	Yes
145-2-04	O.R.	Metastatic carcinoma, primary site undetermined	Exploratory laparotomy, biopsy of liver	Carcinomatosis	No
124-5-14	D.U.	Carcinoma of the esophagus	Gastrostomy	Carcinomatosis	Yes
100-8-88	K.G.	Carcinoma of the rectum	Abdomino-perineal resection	Pulmonary embolus	Yes
029-2-20	E.F.	Carcinoma of the pancreas	Transverse colostomy	Carcinomatosis	Yes
143-9-03	I.V.	Carcinoma of the stomach	Gastroesophagectomy splenectomy	Possible coronary thrombosis	No

OPERATIVE DEATHS - GENERAL SURGERY

PRIVATE SERVICE

Cancer: 2

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
071-9-14	F.S.	Carcinoma of the sigmoid	Witzel enterostomy	Carcinomatosis	No
109-3-57	L.L.	Lymphoma, metastatic	Biopsy	Primary diagnosis	No

OPERATIVE DEATHS - GENERAL SURGERY

Gastrointestinal: 11

CLINICAL SERVICE

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
153-6-37	R.D.	Small bowel obstruction due to internal hernia, (broad ligament)	Release closed loop obstruction, repair of internal hernia	Lower nephron nephrosis Prolonged shock prior to admission	No
083-7-56	L.M.C.	Lye stricture esophagus Mesenteric thrombosis	Small bowel resection	Pulmonary edema	Yes
124-8-86	D.W.	Small bowel obstruction due to adhesions	Exploratory laparotomy and ileo ileostomy	Cardiac failure Electrolyte and fluid imbalance	No
111-8-29	D.H.	Duodenal ulcer, (bleeding)	Gastrectomy	Cerebral Vascular Accident	No
137-6-44	J.E.	Volvulus sigmoid	Resection sigmoid	Cardiac failure	No
009-4-71	R.M.	Gastric ulcer, (bleeding)	Gastrotomy and excision of ulcer	Recurrent bleeding Shock	Yes
100-9-07	M.T.	Fecal fistula	Ileo-sigmoidostomy	Broncho-pneumonia	Yes
139-1-02	F.W.	Bleeding duodenal ulcer	Subtotal gastric resection	Pneumonitis	No
143-9-21	E.S.	Cirrhosis with bleeding esophageal varices	Transesophageal ligation, varices	Mediastinitis and empyema	Yes
142-8-79	G.C.	Cirrhosis with bleeding esophageal varices	Transgastric ligation, varices	Hepatic failure	Yes
141-7-05	C.S.	Pancreatitis	Cholecystectomy, jejunostomy, closure dehiscence	Peritonitis, pancreatic abscess	Yes

OPERATIVE DEATHS - GENERAL SURGERY

Gastrointestinal: 6

PRIVATE SERVICE

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
141-8-40	F.B.	Gastric ulcer, cholecystitis	Subtotal gastrectomy, cholecystectomy and appendectomy	Pneumonia Pulmonary Embolus	Yes
141-7-50	D.L.	Ruptured liver due to blunt trauma	Exploratory laparotomy	Cardiac arrest and exanguination	M.E.
153-6-23	M.S.	Cholecystitis, choledocholithiasis	Cholecystectomy, common duct exploration	Subdiaphragmatic abscess Shock	Yes
143-4-34	P.A.	Obstructive jaundice, previous choledochoduodenostomy	Drainage sub-hepatic abscess	Fluid and electrolyte imbalance	Yes
145-2-91	R.V.	Perforated ulcer, (duodenal)	Gastrectomy	Peritonitis	Yes
080-5-13	A.I.	Metastatic Carcinoma, primary site undetermined	Exploratory laparotomy, biopsy of liver	Carcinomatosis	No

OPERATIVE DEATHS - GENERAL SURGERY

CLINICAL SERVICE

Cardiovascular: 5

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
144-5-57	H.G.	Diabetes, gangrene, left foot	Mid thigh amputation	Cardiac failure	No
094-7-53	R.D.	Arteriosclerotic peripheral vascular disease, gangrene, right foot	Bilateral sympathectomy	Myocardial Infarct	Yes
146-9-42	J.H.	Arteriosclerotic peripheral disease with gangrene	Mid thigh amputation, left	Electrolyte imbalance	No
057-4-12	R.N.	Arteriosclerotic peripheral disease with gangrene, left foot	Mid thigh amputation	Coronary occlusion	No
145-1-07	M.M.N.	Ileo femoral thrombosis	Thrombectomy, mid thigh amputation	Pulmonary embolus	No

OPERATIVE DEATHS - GENERAL SURGERY

PRIVATE SERVICE

Cardiovascular: 1

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
139-1-23	J.E.	Popliteal embolus	Mid thigh amputation	Possible mesenteric embolus	No

OPERATIVE DEATHS - GENERAL SURGERY

CLINICAL SERVICE

Miscellaneous: 4

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
137-9-17	W.F.	Submandibular abscess	Incision and drainage	Laryngeal obstruction	Yes
119-9-91	R.S.	45% 3rd° burns, alcoholism	Debridement	Asphyxia	M.E.
145-2-96	R.T.	Strangulated inguinal hernia	Herniorrhaphy	Pulmonary embolus	No
143-8-84	G.T.	Hemangioma, arm	Excision	Uremia	Yes
				Cardiac arrest	

OPERATIVE DEATHS - GENERAL SURGERY

PRIVATE SERVICE

Miscellaneous: 1

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
141-8-16	A.C.	Decubitus ulcer of buttocks	Incision and drainage abscess, buttocks	Septicemia	No

NONOPERATIVE DEATHS

CLINICAL SERVICE

General Surgery: 12

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Cause of Death</i>	<i>Autopsy</i>
135-7-50	C.B.	Carcinoma of the pharynx squamous cell	<i>E. Coli</i> meningitis	No
142-6-01	W.W.	Probable perforated duodenal ulcer	Generalized peritonitis	No
138-7-85	M.B.	Carcinoma of the ovary	Carcinomatosis	Yes
099-6-07	P.L.	Carcinoma of the sigmoid colon	Carcinomatosis	No
107-2-03	C.M.	Carcinoma of the colon (Perforated)	Peritonitis	Yes
081-8-36	M.G.	Diabetes, stasis ulcer	Cerebral vascular accident	No
140-6-54	E.E.	Diabetes, carcinoma of the pancreas, recto-vaginal fistula, rectal stricture	Cerebral vascular accident Congenital failure	No
148-6-10	J.W.	Hydrocoele, inguinal hernia	Myocardial infarction Cardiac arrest	Yes
023-5-74	L.R.	50% 3rd° burns	Septicemia	M.E.
020-4-62	B.C.	Metastatic carcinoma with ascites, primary site unknown	Carcinomatosis	No
146-1-65	W.N.	Incarcerated right inguinal hernia	Myocardial infarction	No
146-4-00	F.G.	Suppurative parotitis	Pulmonary embolism Bronchopneumonia	Yes

NONOPERATIVE DEATHS

PRIVATE SERVICE

General Surgery: 7

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Cause of Death</i>	<i>Autopsy</i>
130-9-79	B.A.	Cirrhosis, Laennec	Hepatic coma	No
052-8-00	M.L.	Carcinoma hard palate	Primary diagnosis	No
022-6-53	E.M.K.	Large bowel obstruction, etiology undetermined	Possible coronary thrombosis	No
141-7-75	H.W.	Carcinoma of the ovary	Carcinomatosis	No
074-8-57	I.G.	Metastatic carcinoma, primary site, breast	Carcinomatosis	Yes
148-3-64	C.W.	Gastro intestinal bleeding, etiology undetermined	Congestive heart failure	No
138-9-52	W.F.	Carcinoma of the bile duct	Carcinomatosis	Yes

NON-FATAL POST-OPERATIVE COMPLICATIONS—GENERAL SURGERY

<i>Pulmonary Complications:</i>		P.O. cardiac arrhythmia	1
Pneumonitis or atelectasis	14	Congestive heart failure	1
Causative organisms		P.O. cerebral vascular accident	3
Not cultured	8	Post-aortogram vasospasm	1
<i>Hem. staph. aureus</i>	1	Post-aortogram aortic thrombosis ..	1
<i>Dip. pneumoniae</i>	4		
<i>E. coli</i>	1	<i>Fistulae:</i>	
Pleural effusion etiology undetermined ..	2	Cholecystocolic	1
		Duodenal	2
<i>Wound Complications:</i>		Enterocutaneous (ileal)	4
Infection		Colocutaneous	3
Primary wound infection	26	<i>Urinary Tract Infections</i>	9
Secondary wound infection	19		
	45	Causative organisms	
Causative organisms		Not cultured	3
Not cultured	20	<i>Staph. albus</i>	1
<i>Hem. staph. aureus</i>	11	<i>E. Coli</i>	4
<i>Alpha strep.</i>	2	<i>Pseudomonas</i>	2
<i>Beta hem. strep.</i>	2		
<i>Gamma strep.</i>	2	<i>Miscellaneous Infection:</i>	
<i>Microaerophilic strep.</i> ..	1	Post-Op. septicemia	2
<i>Enterococcus</i>	2	Causative organisms	
<i>Cl. Perfringens</i>	4	<i>E. Coli</i>	2
<i>E. Coli</i>	12	Post-Op. parotitis	3
<i>Protus Vulgaris</i>	5	Subdiaphragmatic abscess	3
Dehiscence	3	Causative organisms	
Evisceration	4	<i>Hem. Staph. aureus</i>	1
		<i>Gamma strep.</i>	1
<i>Post-Operative Hemorrhage:</i>		<i>E. Coli</i>	3
Wound hematoma	9	<i>Cl. perfringes</i>	1
G.I. hemorrhage	2	<i>Neurological Complications:</i>	
Intraperitoneal requiring re-exploration ..	1	Meningitis (sterile)	1
		Wrist drop	1
<i>Cardiovascular Complications:</i>		Facial palsy	1
Thrombophlebitis	9		
Thrombophlebitis with embolism	2	<i>Post-Thyroidectomy Complications:</i>	
Coronary thrombosis	1	P.O. tetany	1
Cardiac arrest	2	P.O. obstruction requiring tracheotomy ..	1

MARYLAND PENITENTIARY HOSPITAL

OPERATIONS FROM JULY 1, 1957-DECEMBER 17, 1957—GENERAL SURGERY

<i>Breast:</i>		<i>Small Intestine:</i>	
Excision breast lump (gynecomastia) ..	5	Lysis of adhesions (Int. obstruction) ..	2
		Construction ileostomy	1
<i>Abdominal Wall:</i>		<i>Large Intestine:</i>	
Hernia (inguinal) repair	25	Resection left colon (Ant. resection) ..	1
Hernia (epigastric) repair	4		
<i>Stomach:</i>		<i>Appendix:</i>	
Subtotal gastric resection with		Appendectomy	9
vagotomy	2	<i>Anus and Rectum:</i>	
Subtotal gastric resection	2	Hemorrhoidectomy	18
Gastroenterostomy with vagotomy ..	1	Polypectomy	1

Excision, fistula in Ano.	4	Corrective orthopedic procedures	5
Incision and drainage, para rectal abscesses	2	Excision benign bone tumors or exostosis	2
<i>Exploratory Laparotomy:</i>		Curettage for chronic osteomyelitis ..	4
For trauma (stab wound)	1	Excision bursa	1
<i>Gall Bladder:</i>		Arthrotony	1
Cholecystectomy	3	Amputations	
		Fingers	3
		Toes	3
<i>Skin:</i>		Excision ganglion	4
Excision superficial benign lesions of skin and subcutaneous tissue ..	66	<i>Genito Urinary Surgery:</i>	
Skin graft and reconstructive procedures	4	Excision varicocele	1
Incision and drainage of superficial abscesses	10	Excision epididymis	2
Excision pilonidal sinus	10	Hydrocoelectomy or spermatocelectomy	2
Suture lacerations	6	Orchiopexy	1
Excision ingrown toenail	7	Ureterolithotomy	1
		Circumcision	10
		Dorsal slit for phimosis	3
<i>Hand:</i>		<i>Ophthalmology, Otolaryngology:</i>	
Excision palmar fascia	1	Tonsillectomy	14
Excision fibroma	1	Sub-mucous resection	6
<i>Lymphatics:</i>		Rhinoplasty	1
Node biopsy	4	Excision cataracts	2
<i>Vascular:</i>		Muscle recession for strabismus	2
Ligation and stripping varicose veins ..	6	<i>Diagnostic Procedures:</i>	
<i>Orthopaedic Surgery:</i>		Cystoscopy	5
Closed reductions for fractures	15	Proctoscopy	20
Open reductions for fractures	5	Splenoportography	1
		Lumbar puncture	1

DIVISION OF NEUROLOGICAL SURGERY

This Division has now been housed in the 4G wing of the psychiatric hospital for two and a half years, during which time nine beds have remained vacant. The Division continues to be handicapped by the shortage of service beds. The necessity of admitting traumatic and emergency cases through the accident room and the long-term hospitalization of many of these patients make it possible to admit only an occasional elective case. Consequently, the Outpatient Department suffers severely. Many patients seen in the Outpatient Department should be admitted promptly for diagnostic studies and operation; by the time an elective bed is available many of these patients have sought help elsewhere. The work of examining these patients, therefore, goes for naught when they are lost track of because of inability to have them admitted to the hospital in a reasonable period of time. The service is constantly besieged by referring physicians throughout the state by requests to have service patients admitted. All too frequently these patients have to be admitted elsewhere. Aside from the inability to render the proper service to this type of patient, the residency training program suffers from the lack of beds. Another appeal is made at this time for seven additional service beds.

Both the private and service work of the Division continue to be hampered by the inadequate facilities in the operating room. The lack of organization and personnel shortage in operating rooms greatly increase the hospital stay of both service and private patients. The operative day has been shortened as well as the elimination of an operative schedule on Saturdays. A well equipped ophthalmological examining room has been completed and is housed on 4G. This was made possible through the Hoffberger Neurosurgical Fund.

We welcome the return of Miss Rita Malek as Supervisor of the Neurosurgical Division. We feel that considerable progress both in patient care and in nursing instruction will be further effected. As soon as sufficient personnel becomes available it is the desire of the Division to place Miss Malek in charge of both the operating room and ward Neurosurgical service. We feel that this coordination will add greatly to the efficiency and morale of the service. Under this plan, nurses would divide their time between the operating room and ward nursing. Under such a plan, a nurse will have the opportunity of assisting in the operating room on a case and then following the postoperative progress on the ward. This plan was discussed with the Director of the Hospital and with the Director of Nursing Service before Miss Malek returned and they both agreed that it would be a worthwhile and interesting experiment.

Wednesday mornings continue to be devoted to clinical conferences, including neuroradiology, electroencephalography, neuropathology and clinical discussions.

During the year there were 616 private patients admitted and 162 service patients admitted, a total of 778; this was a decrease of 42 patients over the preceding year. While not statistically important, this decrease is undoubtedly due to the bed shortage and delay in getting patients on the operating poster.

Student teaching consisted of 14 lectures to the Junior class and rotation of Senior students through the service. An average of two Senior students have acted as junior house officers each month. While it is not possible under this plan for all Senior students to rotate through the service, those who do come on the service are able to get an intensive introduction to this specialty. While assigned to this service they attend, along with members of the house and senior staff, the following conferences:

Electroencephalography. Basic principles reviewed and records of current cases are discussed. This conference is given by the Head of the Division of EEG: 45 minutes weekly.

Neuroradiology. All diagnostic X-ray studies for the current week are reviewed. Member of the Radiology Department is in charge: 1 hour weekly.

Clinical Neurology and Neurosurgery. A combined conference attended by members of the Divisions of Neurosurgery and Neurology, at which clinical cases are discussed. Conferences in charge of chiefs of the Divisions: 1 hour weekly.

Neuropathology. Microscopic and gross pathology of current cases reviewed. Conferences in charge of the head of the Division of Neuropathology: 1 hour weekly.

The Division has been supported by two generous benefactors:

Neurosurgical Research Fund (Mt. Ararat Foundation)	\$6,000.00
Hoffberger Research Fund	5,000.00

Dr. Rafael Longo was assigned to Basic Sciences for the year. He was supported by the Hoffberger Research Fund. Dr. Paul Hudson has completed six months of neurological training at the National Hospital in London, England. He also was supported by the Hoffberger Research Fund. Dr. Hudson will remain in England until January 1, 1959.

Mr. Clark Holmes has served as a student fellow during the year. In conjunction with senior staff members he has been engaged in a statistical study of intracranial aneurysms.

CURRENT RESEARCH PROBLEMS

Subarachnoid Cysts (continuation), Arnold, J. G., Mosberg, W. H. and Padget, D.

A Study of the Central Nervous System Regulation of Carbohydrate Metabolism, Mosberg, W. H. with Malina, S.

Statistical Evaluation of Intracranial Aneurysms, Arnold, J. G., Mosberg, W. H. and Holmes, C.*

Clinical Evaluation of Urea in Relation to Intracranial Pressure, Arnold, J. G.

Studies in Intracranial Pressure (continuation), *Clinical Application*, Thompson, R. K. and Malina, S.

PUBLICATIONS BY NEUROLOGICAL STAFF MEMBERS

CROSBY, R. M. N. and BOUDREAU, R.: Pneumoencephalography in Subdural Collections of Fluid in Infants and Children, *Am. J. Roentgenol.* (in press).

THOMPSON, R. K. and MALINA, S.: Dynamic Axial Brain Stem Distortion as a Mechanism Explaining the Cardiorespiratory Changes in Increased Intracranial Pressure (in press).

MOSBERG, W. H. and LINDENBERG, S.: Catatonic Patients Treated with Intraventricular Cholinesterase, *Bull. School Med., Univ. Maryland*.

MOSBERG, W. H. and LINDENBERG, R.: Traumatic Hemorrhage from the Anterior Choroidal Artery. Spontaneous Otorrhea and Rhinorrhea. Extracranial Lesions Associated with Head Injuries (accepted for publication).

MENDELSON, R. A., WEINER, I. H. and KEEGAN, J. M.: Myelographic Demonstration of Brachial Plexus Root Avulsion.

WEINER, I. H., AZZATO, N. M. and MENDELSON, R. A.: Cerebral Angiography: A New Technique—Catheterization of the Common Carotid Artery via the Superficial Temporal Artery, *J. Neurosurg.* (accepted for publication).

PAPERS COMPLETED AND READY FOR PUBLICATION

Mosberg, W. H. and Kiel, Jr., A.: False Localizing Sign, Fifth Nerve Involvement. Sharrett, J., Kiel, Jr., A. and Wagner, J.: Neuroma of the Third Nerve, Secondary to a Ruptured Aneurysm.

Sharrett, J. O. and Kiel, Jr., A.: Clinicopathological Substantiation of Oculomotor Regeneration Phenomena.

* Student Fellow.

RESIDENT STAFF

Co-Residents:

DR. JOHN O. SHARRETT

DR. ROBERT A. MOORE

Assistant Residents:

DR. RUI S. D. DE CARVALHO

DR. I. H. WEINER

*Hoffberger Fellows:*DR. RAFAEL LONGO, *Basic Sciences, University of Maryland*DR. PAUL HUDSON, *Neurology, National Hospital, London*DR. HERBERT S. BELL, *Basic Sciences, Yale University, Neurology,
Neurological Institute, Columbia University**Neurosurgical Research Fellow:*

DR. STEVEN MALINA

Student Fellow:

MR. CLARK HOLMES

STAFF ACTIVITIES

*James G. Arnold, Jr., M.D.:*Attended International Congress of Neurological Sciences, Brussels, Belgium,
July 1957.

Attended Congress of Neurological Surgeons, Washington, D. C., Nov. 1957.

Attended Southern Surgical Association, White Sulphur Springs, West
Virginia, Dec. 1957.

Attended Southern Neurosurgical Society, Jackson, Mississippi, Mar. 1958.

Attended Society of Neurological Surgeons, Durham, North Carolina, Apr.
1958.

Attended Harvey Cushing Society, Washington, D. C., Apr. 1958.

Discussant: Paper by Charles M. Troland, "Cauda Equina Tumors," Southern
Surgical Association, White Sulphur Springs, West Virginia, Dec. 1957."Diagnosis and Treatment of Low Back Pain," Henderson General Hospital,
Henderson, North Carolina, Oct. 1957."Cerebral Complications of Thoracic Injuries," Potomac Chapter, American
College of Chest Surgeons, Baltimore, Maryland."Diagnosis and Treatment of Face Pain," Middle Atlantic Society Oral
Surgeons, Baltimore, Maryland, May 1958.*Richard G. Coblentz, M.D.:*Attended Medical and Chirurgical Faculty Semi-Annual Meeting, Ocean City,
Maryland, Sept. 1957.Attended meeting of the Maryland Section of American College of Surgeons,
Feb. 19, 1958.Attended Southern Neurosurgical Society Meeting, Jackson, Mississippi,
Mar. 20, 1958.

Attended Medical and Chirurgical Faculty Annual Meeting.

R. M. N. Crosby, M.D.:

- Attended Congress of Neurological Surgery, Guest Speaker, Nov. 1957.
- Guest Speaker, Virginia Pediatric Society, Feb. 1958.
- Guest Speaker, Richmond Academy of Medicine, May 1958.
- Guest Speaker, Symposium, "Behavior Disorders in Children," Doctors Hosp., May 1958.
- Television Program, TV-MD, Jan. 1958.
- Radio, Maryland Society Mental Retardation, Nov. 1957.
- Woman's Club of Severna Park, "Mental Retardation in Children."

August Kiel, Jr., M.D.:

- Attended American College of Surgeons, Oct. 14, 1957.
- Attended Congress of Neurological Surgeons, Feb. 5, 1958.
- Attended the Harvey Cushing Society, Apr. 3, 1958.

William H. Mosberg, M.D.:

- Editorial Committee, Congress of Neurological Surgeons.
- Magistrate's Committee, Baltimore City Medical Society.
- Fellow, American College of Surgeons, Oct. 18, 1957.
- Attended Congress of Neurological Surgeons, Nov. 8, 1957.
- Attended American College of Surgeons, Oct. 16-18, 1957.
- Attended Interurban Neurosurgical Society, Feb. 8, 1958.
- Attended Basal Ganglion Surgery Symposium, May 15-16, 1958.
- Lecture, Maryland General Hospital House Staff, "Head Injuries," Sept. 18, 1957.
- Lecture, St. Joseph's Hospital Surgical Staff, "Head Injuries," Dec. 4, 1957.
- Lecture to St. Agnes Surgical Staff, "Intramedullary Lesions of the Spinal Cord," Dec. 17, 1957.
- Lecture to Lutheran Hospital Surgical Staff, "Intracranial Vascular Lesions," Jan. 2, 1958.
- Lecture to Medical Staff of Franklin Square Hospital, "Lumbar Puncture," Feb. 13, 1958.
- Discussion of cases, Anesthesia Study Committee, Mar. 26, 1958.
- Lecture to Surgical Staff of St. Agnes Hospital, "Head Injuries," Apr. 2, 1958.

Raymond K. Thompson, M.D.:

- Elected as President of the Congress of Neurological Surgeons.
- Elected Vice-President of the Neurosurgical Society of America.
- Elected member of the Executive Committee of the World Federation of Neurological Societies.
- Attended World Federation of Neurological Societies, July 1957.
- Attended Congress of Neurological Surgeons, Nov. 1957.
- Attended Neurosurgical Society of America, Jan. 1958.
- Attended Southern Neurosurgical Society, Mar. 1958.
- Attended Harvey Cushing Society, Apr. 1958.
- Lectures to the nursing staff at St. Joseph's Hospital given in Sept. and Oct. 1957 and Feb. 1958.
- Lectures to the nursing staff at Maryland General Hospital, Apr. 1958.
- Lectures to the house staff at Maryland General Hospital in Sept. 1957.

OPERATIONS, UNIVERSITY HOSPITAL—NEUROSURGERY

	Private	Clinical
<i>Cranial Surgery:</i>		
Craniotomy for tumor removal, brain.....	34	11
Craniotomy for tumor, scalp and skull.....	4	0
Craniotomy, subdural membrane removal.....	5	4
Trephines, meningeal exploration.....	20	11
Trephines, evacuation brain abscess.....	0	2
Craniotomy, evacuation of abscess.....	0	2
Craniotomy, intracranial aneurysm ligation.....	2	1
Craniotomy for hemispherectomy.....	1	0
Trephines, prefrontal lobotomy.....	7	0
Cranicectomy, cranial nerve section.....	7	0
Cranicectomy for sequestectomy.....	1	0
Craniotomy for electrocorticogram.....	2	0
Trephines, evacuation intracerebral hemorrhage.....	4	0
	87	31
<i>Vertebral Column and Spinal Cord Surgery:</i>		
Cervical laminectomy for Kahn procedure.....	2	3
Cervical interlaminar exploration for discectomy.....	14	5
Lumbar interlaminar exploration for discectomy.....	102	10
Lumbar laminectomy for discectomy.....	6	0
Laminar exploration for release of adhesions.....	1	0
Disc exploration and spinal fusion.....	3	0
Laminectomy for vertebral column tumor or disease.....	1	7
Laminectomy for spinal cord tumor.....	3	0
Laminectomy for tractotomy, rhizotomy, cordotomy.....	7	10
	139	35
<i>Congenital Malformation Surgery:</i>		
Meningocele-Myelomeningocele repair.....	2	0
Cranial osteotomy.....	2	0
Spinal shunts.....	6	2
Ventricular shunts.....	2	2
Choroid plexus, cauterization.....	1	1
	13	5
<i>Traumatic Neurosurgery:</i>		
Application of Raney-Crutchfield tongs (O.R.).....	1	0
Cranicectomy for subtemporal decompression.....	5	7
Cranicectomy for therapeutic section of tentorium.....	1	0
Craniotomy for elevation of depressed skull fracture.....	4	6
Craniotomy for cranioplasty.....	5	3
Debridement and plasty of scalp lacerations.....	1	3
Debridement and decompression of spinal fracture.....	2	0
Laminectomy for removal of foreign body (cord).....	0	1
	19	20
<i>Peripheral Nerve Surgery.....</i>	4	0

OPERATIONS—NEUROSURGERY (Continued)

	Private	Clinical
<i>Neuro-X-ray Diagnostics:</i>		
Trephines and Ventriculogram	21	10
Ventriculography without Trephines	4	2
Pneumoencephalography	71	21
Angiography (arteriogram)	53	24
Myelography	159	25
Discography	0	0
Sinography	0	0
	308	82
<i>Miscellaneous:</i>		
Ligation carotid artery	2	0
Trephine for pallidotomy	1	1
	3	1

OPERATIVE DEATHS - SURGICAL SPECIALTIES

PRIVATE SERVICE

Neurosurgery: 16

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
137-0-48	R.M.	Aneurysm, congenital; subarachnoid and intracere- bral hematoma	Aspiration of intra- cerebral hema- toma	Primary diagnosis	No
137-1-61	D.W.	Craniocerebral trauma; subdural hematoma, intracerebral hematoma	Subtemporal de- compression Evacuation sub- dural and intra- cerebral hematomas	Cerebral edema	No
083-8-17	W.L.	Recurrent astrocytoma, brain stem extension	Hemispherectomy	Primary diagnosis	Yes
072-1-54	F.T.	Recurrent hypophyseal adenoma Brain stem infarct	Partial intracapsular excision pituitary tumor	Brain stem infarct	Yes
134-7-34	J.M.	Medulloblastoma, 4th ventricle	Occipital trephines, ventriculogram, posterior fossa exploration, biopsy tumor 4th ventricle	Primary diagnosis	No
137-1-45	W.B.	Aneurysm, congenital	Thoracotomy and tracheotomy	Cardiac arrest	No
138-1-09	J.S.	Glioma, mixed	Craniotomy and excision cerebral tumor	Cerebral edema	Yes
140-8-46	A.R.	Metastatic carcinoma to brain	Craniotomy and excision tumor	Primary diagnosis	Yes
070-2-06	C.S.	Hematoma, subdural, chronic	Bilateral temporal trephines	Congestive fail- ure Pneumonia	Yes

OPERATIVE DEATHS - SURGICAL SPECIALTIES—(Continued)

PRIVATE SERVICE

Neurosurgery: 16—(Continued)

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
143-6-20	R.A.	Craniocerebral trauma, extradural hematoma	Subtemporal decompression, evacuation extra- dural hematoma, tentorial section	Primary diagnosis	M.E.
145-2-80	V.S.	Sarcoma, parasagittal	Frontal trephine, biopsy tumor	Cerebral edema	Yes
146-1-58	C.B.	Congenital aneurysm	Craniotomy with ligation of aneurysm	Cerebral edema	Yes
147-6-05	V.S.	Craniocerebral trauma	Bilateral temporal trephines Subtemporal decom- pression with evacuation sub- dural hematoma	Primary	M.E.
145-2-08	H.W.	Brain tumor, metastatic	Craniotomy, biopsy of tumor	Primary diagnosis	No
146-0-59	W.W.	Spinal cord compression due to metastatic carcinoma	Laminectomy, excision of me- tastatic tumor	Epidural abscess	Yes
152-6-19	E.M.	Congenital aneurysm	Craniotomy, Trapping of aneurysm	Cerebral edema	No

OPERATIVE DEATHS - SURGICAL SPECIALTIES

CLINICAL SERVICE

Neurosurgery: 16

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
137-7-89	H.B.	Craniocerebral trauma	Debridement compound skull fracture, ligation superior sagittal sinus	Primary diagnosis	M.E.
137-9-63	R.S.	Craniocerebral trauma, bilateral subdurals, brain stem contusion	Bilateral sub- temporal decom- pression, drainage bilateral subdurals	Primary diagnosis	M.E.

OPERATIVE DEATHS - SURGICAL SPECIALTIES—(Continued)

CLINICAL SERVICE

Neurosurgery: 16—(Continued)

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
138-2-75	W.T.	Craniocerebral trauma, cerebral contusion	Bilateral sub- temporal decom- pression, evacuation clot	Primary diagnosis	M.E.
138-9-94	M.A.	Craniocerebral trauma, acute subdural hematoma	Subtemporal de- compression, evacuation hema- toma	Primary diagnosis	No
139-1-58	M.R.	Craniocerebral trauma, cerebral lacerations, subdural hematoma, rt.	Subtemporal de- compression, evacuation hema- toma	Cerebral edema	M.E.
136-5-42	B.H.	Intracerebral abscess Intraventricular rupture	Enucleation of abscess	Ventriculitis	No
139-9-12	L.S.	Craniocerebral trauma	Removal fractured skull, repair lacerations face and calf, re- duction fracture, left arm	Atelectasis	M.E.
139-9-05	F.S.	Aneurysm, congenital	Craniotomy, ligation aneurysm	Cerebral edema	No
138-5-51	C.L.	Craniocerebral trauma	Biparietal trephines, drainage subdural hydroma	Congestive heart failure	No
141-9-28	G.B.	Apoplexy, cerebellar	Temporal trephines	Primary diagnosis	No
143-6-45	J.W.	Craniocerebral trauma	Debridement and repair scalp laceration; debridement of cerebral tissue	Primary diagnosis	M.E.
142-4-69	G.C.	Contusions, cerebral; cerebral concussion, subarachnoid hemorrhage	Tracheotomy	Primary diagnosis	No
145-2-99	J.C.	Abscesses, retroperitoneal, spinal, extradural, pul- monary, multiple	Laminectomy, drainage of extra- dural abscess	Primary diagnosis	Yes
147-3-33	J.W.	Astroblastoma	Craniotomy, excision tumor	Cerebral edema	M.E.
149-1-11	H.J.	Intracerebral hemorrhage	Bilateral temporal and frontal trephines	Primary diagnosis	M.E.
004-4-93	R.R.	Congenital aneurysm	Bilateral temporal trephines, subtemporal decompression, aspiration intra- cerebral hemor- rhage	Intraventricular hemorrhage	Yes

NONOPERATIVE DEATHS

CLINICAL SERVICE

Neurosurgery: 6

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Cause of Death</i>	<i>Autopsy</i>
137-2-17	C.H.	Meningitis, diplococcus pneumonia	Primary diagnosis	Yes
139-1-17	L.U.	Frontal lobe glioblastoma multiforme	Hemorrhage into tumor	Yes
140-5-96	E.B.	Congenital aneurysm	Subarachnoid hemorrhage	Yes
144-5-79	N.B.	Cerebral vascular thrombosis secondary to sickle cell disease	Cerebral edema	No
149-4-52	P.S.	Cranio cerebral trauma	Cerebral edema	M.E.
154-4-85	E.R.	Nasopharyngeal carcinoma	Brain stem compression	No

NONOPERATIVE DEATHS

PRIVATE SERVICE

Neurosurgery: 13

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Cause of Death</i>	<i>Autopsy</i>
136-8-69	M.T.	Astrocytoma, recurrent	Cerebral edema	Yes
137-3-45	D.W.	Aneurysm, congenital; subarachnoid hemorrhage	Primary diagnosis	Yes
134-2-02	V.O'H.	Glioma, recurrent; uncinat herniation	Primary diagnosis	No
139-2-98	J.H.	Cranio cerebral trauma; uncinat herniation	Primary diagnosis	M.E.
140-3-41	M.S.	Aneurysm, congenital; intracerebral hemorrhage	Primary diagnosis	No
140-8-16	F.Y.	Unknown, awaiting autopsy report	Unknown	Yes
100-2-10	H.C.	Brain tumor	Primary diagnosis	Yes
143-4-00	M.K.	Congenital aneurysm	Primary diagnosis	No
149-8-43	E.F.	Congenital aneurysm	Subarachnoid hemorrhage	No
152-9-39	E.O.	Congenital aneurysm	Subarachnoid hemorrhage	Yes
154-2-40	J.W.	Bullet wound of head	Admitted D.O.A.	M.E.
155-1-79	S.	Cranio cerebral birth trauma; subdural hematoma, bilateral; dehydration	Dehydration	Yes
154-1-53	K.H.	Medulloblastoma	Brain stem edema	York, Pa. No

DIVISION OF ORTHOPEDIC SURGERY

This Division has fared no better in the past year than it has in preceding years. Its potential as a large, active, vigorous teaching and training area is largely dissipated by its lack of beds and bed space. The majority of adult patients admitted to the hospital are those with lesions of an urgent character, usually precipitated

by recent, acute injury—and a large number of those needing admission on this basis cannot be accommodated. Such requirements are, of course, a measure of the service demanded by the community which the hospital serves. On the other hand, the ability to admit those patients, and to operate upon them, who require extensive diagnostic studies or whose orthopedic difficulty admits delayed admission, is sharply curtailed and sometimes totally interdicted by this demand by the acutely injured patient for bed space. This has resulted in a small, active but unbalanced service which does not contribute as it should to the development of a broad knowledge of orthopedic disease. The training and teaching in this area is further handicapped by this lack.

A second factor limiting the effectiveness of this service is the lack of a full-time orthopedic surgeon. It is conceivable that someone of the present members of the orthopedic staff might assume this role were the bed and operation room space of a size sufficient to make such constant devotion attractive and worthwhile.

During the past year one resident House Officer has been in attendance on this service and he has been assigned regularly one rotating house man. This has assured the Division House Officer coverage throughout the year.

The program of teaching and training of orthopedic surgeons by the members of this Division has not actually come to fruition. It has been planned that one and one-half years would be spent by each house man at the University Hospital in adult orthopedics, one year would be spent at Kernan's Hospital for Crippled Children and six months would be devoted to the rehabilitation problems such as are seen at the Montebello State Hospital and the Rosewood Training School in Owings Mills, Maryland. These plans have not been put to use because of a lack of residents to fill successfully each opening.

The teaching of Junior medical students has not changed over that seen in preceding years—a series of whole-class lectures and a short period of some three weeks attending patients in the dispensary area is the sum of instruction given. It is to be noted that this has not been well monitored and frequent absences of the instructor combined with a hurried brusqueness has often robbed this section of instruction of its full effectiveness.

The Senior medical students may select this service for one-half their surgical experience and they have done this consistently throughout the year. The case load has not been great but the bedside instruction by Dr. John Tansey has been most rewarding.

A program of research, either at a basic level, or one devoted to clinical problems, is non-existent in this Division. This is recognized and deprecated by the members of this Division but rarely has any member suggested the obvious remedy. The lack of a large House Officer group has contributed not a little to this disinclination to undertake a research project.

Resident:

NICK A. VALIS, M.D.

In Memoriam

HENRY FRANZ ULLRICH, M.D.

Born November 17, 1903, Dr. Henry Franz Ullrich, native of Baltimore, Maryland, died March 24, 1958, of lymphosarcoma.

At the time of his death Dr. Ullrich was Clinical Professor of Orthopedic Surgery at the University of Maryland School of Medicine and Staff member of Church Home Hospital.

Graduate of the Baltimore Polytechnic Institute "A" course, Dr. Ullrich matriculated at Johns Hopkins University and obtained his premedical education. He received the Doctorate of Medicine degree from the University of Maryland School of Medicine in 1929. He was a House Officer from 1929 to 1931 at the University Hospital. At this time he elected orthopedic surgery as his choice. Upon appointment to the New York Orthopedic Hospital, he remained as Intern, Resident and Fellow in Orthopedic Surgery the next five years. After seven years of postgraduate training, he opened his office for private practice of orthopedic surgery in Baltimore, Maryland.

Dr. Ullrich voluntarily served with the Forty-Second General Hospital. As Chief of the Orthopedic Section, he went with the unit to Australia in May 1942. Subsequently, he served as Chief of Surgery. He also served in the Philippines. He returned to the country as a Colonel in the Medical Corps of the Armed Forces of the United States. Until his discharge in 1945, he served as Chief of the Orthopedic Section at Woodrow Wilson General Hospital.

Certified by the American Board of Orthopedic Surgery in 1940, Dr. Ullrich held membership in various professional societies including: The American Academy of Orthopedic Surgeons; American Orthopedic Association; Association of Bone and Joint Surgeons; The Inter-Urban Orthopedic Society; The Society of Medical Consultants to the Armed Forces and The American College of Surgeons.

A Governor of The American College of Surgeons since 1945, Dr. Ullrich served also as President of the Board of Trustees of the Blue Shield of Maryland.

As member of the staffs of twelve Baltimore hospitals, Dr. Ullrich possessed amazing stamina and capacity for work. Over the years he developed a large following and enjoyed the respect of both lay and professional peoples. His colleagues greatly valued his warm companionship, sense of humor, judgment and skill in both medical and non-medical matters.

It is with profound sorrow that the loss of such an unusually capable, experienced, kindly and devoted physician must be recorded.

—HARRY C. HULL, M.D.

OPERATIONS, UNIVERSITY HOSPITAL—ORTHOPAEDIC SURGERY

	<i>Private</i>	<i>Clinical</i>
Abscess, I & D.....	0	0
Achilles tendon lengthening.....	0	0
Amputation, revision.....	3	0
Arthrodesis.....	8	14
Arthroplasty, hip.....	1	0
Arthrotomy.....	5	3
Baker's cyst, excision.....	0	0
Biopsy.....	1	1
Bone cyst, excision.....	0	0
Bone graft.....	0	1
Bone tumor, biopsy and excision.....	3	2
Bunionectomy.....	5	2
Capsulotomy.....	2	0
Cast, body.....	3	4
leg.....	3	19
miscellaneous.....	3	2
Closed reduction, fracture and dislocations.....	45	57
Closed Reduction, Accident Room.....	0	521
Excision, bursa.....	2	0
exostosis.....	0	0
synovia.....	1	0
Exploration, tendon sheath.....	1	1
Extraction of nail or plate or prosthesis.....	5	7
Fasciotomy.....	0	0
Hip prosthesis and hip reconstruction.....	3	3
Insertion of intramedullary nail or pin.....	2	7
Laminectomy.....	2	0
Laminectomy with fusion.....	2	1
Meniscusectomy.....	19	4
Miscellaneous (include manipulation).....	5	0
Muscle transplant.....	0	0
Neurolysis (division).....	4	1
Open reduction, fractures and dislocations.....	9	13
Smith-Peterson nailing.....	12	29
Ostectomy, partial (sequestrectomy).....	5	3
Semi-Patellectomy.....	0	1
Patella repair.....	0	6
Saucerization.....	0	2
	156	697

OPERATIVE DEATHS - SURGICAL SPECIALTIES

Orthopaedic Surgery: 3 CLINICAL SERVICE

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
135-8-13	P.K.	Sub-capital fracture, left femur	Excision head and neck femur, insertion of prosthesis	Cerebral vascu- lar accident	No
147-9-84	S.M.	Intertrochanteric fracture	Thoracotomy for cardiac arrest	Cardiac failure	No
143-8-73	G.C.	Fractured hip, empyema	Drainage of empyema	Empyema, pneumonia	No

OPERATIVE DEATHS - SURGICAL SPECIALTIES

PRIVATE SERVICE

Orthopaedic Surgery: 1

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
080-2-32	M.R.	Fractured hip	Excision head and neck femur, insertion of prosthesis	Congestive heart failure	No

NONOPERATIVE DEATHS

CLINICAL SERVICE

Orthopaedic Surgery: 1

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Cause of Death</i>	<i>Autopsy</i>
139-9-51	S.B.	Fracture head of femur	Uremia	M.E.

DIVISION OF OTOLARYNGOLOGY

The direction of activities in this Division has changed almost completely under the direction of its new chief, Dr. Cyrus L. Blanchard. The keystone in the student and resident training program is considered to be the Outpatient Department where the fundamental principles of otolaryngologic diagnosis and the end results of treatment can be observed, followed and evaluated. To this end a grant of \$19,120.00 was obtained from the National Institute of Health to refurbish and to increase the capacity of this area, to innovate an audiology area adjacent to the former otology clinic and to support and improve the resident training program in the Division. With funds supplied by the Surgery Department and through the generous support of the Women's Board of the Hospital large renovations were carried out in the Looper Clinic area of the hospital along with the installation of a sound-proof audiometric testing and research unit. Available in this unit is a complete set of audiological examining equipment of the latest design.

The chief of this Division has indicated his pleasure with the fine support given him by his part-time associates, Drs. Cross, Haase, Gerlach and Michael, in the improvement in volume and calibre of patients in the clinic and in the teaching and training program now underway.

It has been possible during this year to initiate through the University Postgraduate Division a Postgraduate Course for Residents in Otolaryngology which has been regularly attended by trainees from the South Baltimore General Hospital, the Mercy Hospital, The Baltimore Eye & Ear Hospital and the University Hospital. This program has been initiated with the help, support and supervision of Dr. Frank Figue, Chairman of the Department of Anatomy.

Members of the Otolaryngology Division have, in turn, participated in the teaching of head and neck anatomy to Freshmen medical students. The program of instruction in the physiology of the ear, nose and throat has been most capably undertaken by Dr. Samuel Fox, Associate Professor of Otolaryngology.

The initiation of a strong and progressive program in the diagnosis and treatment of hearing defects has been ably seconded by Mrs. Katherine Hoyt, audiologist, who came early in the year and, before her departure, was able to interest many divisions in the school in the value of her competent audiological services. In this short period it was possible also to start the development of an extensive bibliography of hearing testing techniques and to set up programs of examination useful in the training of House Officers and students. The recent departure of Mrs. Hoyt has required that her duties be taken over, in part, by a student fellow after minimal instructions by her. Mr. Ramon F. Roig, now a Senior medical student, has accepted this appointment for the summer.

With the support of the Department of Pediatrics, we shall be supplemented shortly by a speech therapist (Mr. John Carter) interested basically in the hearing and speech problems that will arise in the Multiple Handicapped Children's Clinic. This will be an important addition to the hospital staff and particularly to the otolaryngology staff.

The student teaching program has been most difficult to organize in this Division. A series of whole-class lectures are given early in the Junior year with scattered supplemental lectures late in the spring semester. Students are assigned in small groups to the clinic area for periods averaging seven days. In this period it is expected that the student will learn to undertake a standardized, simplified otolaryngologic examination and to become aware of the possibilities and limitation of these techniques. This is a difficult assignment in so short a period of time. Some furtherance of the students' knowledge of diseases of the Ears, Nose and Throat was anticipated during the period these men spent at Mercy Hospital. Because of the difficulty of scheduling and of coordination between the two areas this has been unsatisfactorily accomplished.

The teaching done by this Division during the Senior student year is, as with each of the other surgical divisions, done on a student-choice basis, in general, more students wished this service than it could accommodate. The teaching made possible with small groups of 1, 2 or 3 students is of close personal instruction and supervision in both the inpatient and outpatient areas, assigned reading, intimate discussion groups and participation in all House Officer teaching events. This type of preceptorship instruction has shown itself invaluable.

A list of operations done in this Division during the past year is appended. The material is scant. The source of material is abundant and can be utilized only through the availability of hospital beds. This shortage is most crucial on the ward service and is of particular concern with the imminent arrival of a full House Staff of two assistant residents and one resident within the next few weeks. The research activities in this Division are just being initiated and are likely to be slow in development because of the lack of space, experimental animals, equipment and manpower. For the moment, much emphasis and effort must be placed in the development of a clinical service, if the space in the hospital will admit this. However, through a U. S. Air Force grant, this division is participating with Dr. Robert Golambas and Mr. Donald Bogdanski in an investigative program on "Brain Events During Sound Stimulation" which must be undertaken at the Walter Reed Institute of Research, as a result of our lack of research facilities.

A clinical investigative study is also underway in this Division and again is being undertaken by a Senior medical student. Mr. Martin Kleinman will devote the summer to a screening study in one of the major dispensary areas to detect and record the incidence of subclinical hearing defects in that clinic population. Those patients with abnormal hearing will be seen later for definition and evaluation of their defect.

At this time and largely by tradition, the Outpatient Clinics in many divisions meet only a few days a week and only a part of a day. At the moment, the Otolaryngology Clinic meets four afternoons per week. In the coming year, it will also meet three mornings per week, on a case review basis, where students and resident will present to the attending staff, patients for evaluation for surgical treatment. This will be a valuable addition to the teaching conferences already functioning in this Division.

The needs of this Division are considerable:

1. Bed space, both ward and private.
2. Operation room time and space.
3. Research laboratory space.

LECTURES

Dr. Cyrus L. Blanchard:

Parents Association of Children with Impaired Hearing, YWCA, Nov. 19, 1957.

"Auditory Defects," William S. Baer School, Baltimore, Md., Jan. 23, 1958.

"Hearing," TV-MD, Baltimore, Md., Mar. 23, 1958.

"Development in Otological Surgery," Mercy Hospital, Baltimore, Md., Apr. 8, 1958.

"Treatment of Patients with Advanced Malignant Lesions of the Head and Neck," Roundtable Discussion, Park Plaza Hotel, Baltimore, Md., Apr. 17, 1958.

"Salivary Glands," Johns Hopkins Hospital, Baltimore, Md., May 9, 1958.

PUBLICATIONS BY OTOLARYNGOLOGY STAFF MEMBERS

"University Hospital's Ear, Nose and Throat Unit," Maryland State Dept. of Health M. Bull. 30: No. 4, Apr. 1958.

"Ear, Nose and Throat Division—University Hospital," Nurses Alumnae Assoc. Bull., Univ. Md., June 1958.

OPERATIONS, UNIVERSITY HOSPITAL—OTOLARYNGOLOGY

	<i>Private</i>	<i>Clinical</i>
Tracheotomy	2	9
Submaxillary gland excision.....	1	0
Mastoid surgery	20	4
Caldwell-Luc and sinus surgery.....	9	1
Laryngectomy	0	4
Tonsillectomy	6	1
Tonsillectomy and Adenoidectomy.....	30	12
Adenoidectomy	2	0
SMR	4	1

Rhinoplasty	0	1
Stapes mobilization	13	0
Polypectomy	0	1
Fibroma nasopharynx	0	1
Laryngoscopic examination	12	13
Maxillectomy	1	0
Mandibulectomy + radical neck	0	1
Supraomohyoid dissection	0	1
	100	50

NONOPERATIVE DEATHS

CLINICAL SERVICE

Otolaryngology: 1

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Cause of Death</i>	<i>Autopsy</i>
129-9-13	E.C.	Carcinoma of the larynx	Exsanguination from ruptured carotid (post-irradiation)	No

DIVISION OF THORACIC SURGERY

The staff of the Division of Thoracic Surgery is composed of two full-time individuals, at the clinical, administrative and research level and three part-time associates. The Division is devoted to diagnosis, therapy, research and teaching in the field of thoracic surgery.

The clinical areas are three in number and consist of University Hospital, Mercy Hospital and Mt. Wilson State Tuberculosis Hospital.

At University and Mercy Hospitals, the clinical work consists of general thoracic surgery and cardiovascular surgery. At Mt. Wilson, the clinical work consists of tuberculosis surgery. All three units emphasize research, both basic and applied. The Division is headed by Dr. R. Adams Cowley, full-time, and the staff consists of Dr. Bruce W. Armstrong, full-time, Drs. John Miller, William Garlick and William Esmond, part-time. With the assistance of four technicians, the entire staff is engaged in research.

Teaching falls into four categories:

1. A two-year-residency program is given for qualified candidates who wish to become proficient in the field of thoracic surgery.
2. Teaching associated with house officers.
3. Teaching associated with the Medical School, *i.e.*, didactic lectures to the Junior class and personalized unit instruction for the Senior class.
4. Lectures for the Nurses Training Program, which includes a concentrated course each year for a small group of nurses wishing to specialize in thoracic surgery nursing.

All three hospital areas have functioning cardio-pulmonary laboratories for both clinical investigation and basic research. There has been a marked improvement in both the availability and type of equipment used (both as regards cardiovascular diagnosis and therapy as well as research); however, the research facilities are

still far from complete. At the present time, outside space is being considered for the cardio-pulmonary laboratory and exploratory plans are underway to convert the 4C student laboratory to an ancillary cardio-pulmonary laboratory. The office of the Division chief on 4D is being renovated and enlarged to make available an area for patient consultation and examination. Since the cardio-pulmonary laboratory is a new facility in this hospital and in the Department of Surgery, some funds observations upon it are in order:

In the early fall of 1957, arrangements were made for the Cardio-Pulmonary Laboratory of the University Hospital to begin making Disability Evaluations for the State of Maryland Office of Vocational Rehabilitation. It thus became feasible to obtain space as well as funds for equipment and salaries to provide adequate laboratory facilities for pulmonary function testing.

In November 1957, the pulmonary branch of the Cardio-Pulmonary Laboratory was established. During the ensuing months, its activities reached a new and higher level than ever before: prior to November, the monthly case load was approximately 12 per month; the number of laboratory tests was approximately 20 per month. In March 1958, 35 cases were studied and 110 laboratory procedures were done; April and May were essentially the same. In the 11 months covered by this report, 644 procedures have been done whilst studying 254 cases.

In March 1958, a contract was obtained from the Social Security Administration providing funds on a continuing basis for examining Disability Insurance Applicants. This is part of a long-term project designed to establish new standards for evaluation of disease in persons claiming disability due to Cardio-Respiratory disease.

This effort has an approach that is both broad and intensive; it entails a detailed clinical examination, an adequate thoracic radiologic examination, electrocardiography, detailed cardio-pulmonary function testing, and an unselected number of applicants interviewed by a psychiatrist.

In July 1957, a mechanism was put into effect which enabled the laboratory to submit McBee cards to the Business Office, thus enabling the hospital to charge for services rendered. In effect, the laboratory is credited with these charges. The funds thus made available have contributed significantly to the laboratory expansions described above. It is hoped that in the next Fiscal Year, the laboratory can be given a specific allocation of funds (based on expected receipts) which will be used to meet the laboratory's salary, supply and equipment expenses.

During the year, the cardiac catheterization team has averaged two catheterizations per week with the majority being diagnostic studies in persons suspected of having congenital disease. The most notable advance in this area has been the acquisition of equipment; the laboratory now has completely modern, completely satisfactory equipment with resultant significant improvement in diagnostic accuracy. For example: it is now possible to do "dye dilution" studies in all cases.

The Cardio-Pulmonary Staff at present includes: Bruce W. Armstrong, M.D., Holcombe H. Hurt, Jr., and Robert Hill.

The research activities in this Division are widely varied and are participated in largely by all of the Division members. They are best listed with the name of the chief investigator appended:

Blood Pump, Oxygenator—Dialysis Device (Dr. Esmond). This project is largely completed with the satisfactory development of the pump-oxygenator systems and subsequently the development of a disposable plastic disc system. Its completion has required also the development of a simplified, explosion-proof mechanical drive for blood.

In the course of these developments two new steam sterilizable, hemodialysis apparatus have been prepared and given experimental trial.

The work by Dr. Esmond in this area will continue along the following lines:

1. Improvements in the disc oxygenator.
2. Magnetic flow meter for use in the pump-oxygenator.
3. Oxygen electrode for the pump-oxygenator.
4. pH electrode for the pump-oxygenator.
5. Further testing of the hemodialysis apparatus.

The Origin and Utilization of Ammonia in Shock (Dr. Cowley). Much of this study has been completed and is in press. However, further clinical studies are in process as are various studies upon the relationship of other ions, pH, etc., to the clinical picture of ammonia intoxication.

A Physiologic Approach to Disability Evaluation (Dr. Armstrong). This study is devoted to the evaluation of disability from cardio-respiratory dysfunction in applicants applying for disability insurance. The study is barely underway.

The Development of an Electronic Cardiac Pacemaker, Defibrillator and Monitor (Mr. Morris Tischler).

The Evaluation of High Energy Irradiation upon Clinically Unresectable Neoplasms of Esophagus (Dr. Cowley and Dr. Bloedorn), and Lung (Dr. Cowley and Dr. Bloedorn).

The problems of the future for this Division are perhaps four in number:

1. *Inadequate bed space.* Approximately one-half of the patients admitted to this service are required to wait 10-14 days for bed space; some have been on the waiting list for four or more weeks and these include patients with neoplastic disease and those with advanced cardiac disease requiring surgical repair. At present nearly all surgical cardiac patients must be admitted to the Medical service.
2. *Insufficient Nursing Service.* Nearly all patients admitted to the thoracic service require expert nursing attention which is difficult to attain except from a small group of specially trained nurses. These could be used most efficiently if all thoracic surgery patients could be placed in a single area.
3. *An Ineffectual Outpatient Service.* Since the bed capacity of this service is small, the admission of the ambulatory patient for diagnostic work-up must be kept to a minimum in order to make available to the acutely ill patient sick beds. Many of the patients seen are diverted to other hospitals which can more readily supply this patient with these needed measures.
4. *Inadequate facilities for further expansion of research activities.* This Division is engaged in an active investigation program and feels it needs much larger facilities than those currently available.

This Division is seriously handicapped by the need for another full-time staff member who can support the Division chief in the University Hospital, the dispensary, the research laboratory and at the sanatorium.

LECTURES

Dr. William G. Esmond:

"Iron Metabolism," Medical Seminar, Mercy Hospital, Baltimore, Md., Apr. 1958.

"Pump-Oxygenator," TV-MD, Jan. 12, 1958.

EXHIBITS

Disposable Disc Oxygenator System, American Association for Thoracic Surgery, Boston, Mass., May 15, 1958.

LECTURES

Dr. R. Adams Cowley:

"Patent Ductus Arteriosus," American College of Surgeons, Atlantic City, N. J., Oct. 15, 1957.

"Origin and Utilization of Ammonia in Shock," and "Study of Ammonia and Electrolyte Changes," Medical Conference, Mexico City, Mexico, Oct. 25, 1957.

"Trauma to the Chest," "Recent Advances in Vascular Surgery," "Pulmonary Lesions Amenable to Surgery," and "Symposium—Childhood Cardiac Lesions, Their Diagnosis, Management and Correction," Postgraduate Medical Seminar Medical Program, Caribbean Cruise, Nov. 30, 1957 through Dec. 6, 1957.

"Cardiac Arrest," Maryland Dental Anesthesiology Association, Baltimore, Md., Dec. 16, 1957.

"Machines Used in Cardiac Surgery," Television Program, Baltimore, Md., Jan. 12, 1958.

"Surgical Approach to the Therapeutic Problem," Electronics Association—Electronics in Medicine, Baltimore, Md., Jan. 21, 1958.

"Origin and Utilization of Ammonia in Shock," Sinai Hospital, Baltimore, Md., Feb. 2, 1958.

"Cardiovascular and Thoracic Nursing Team," Cardiac Nursing Seminar, Baltimore, Md., Apr. 11, 1958.

"Cancer of the Lung," Television Program, Salisbury, Md., Apr. 14, 1958.

"Cancer of Lung and Esophagus," Wicomico Medical Society, W. Va., Apr. 17, 1958.

*Dr. William L. Garlick**

"Inoperable Cancer," presented at the Cancer Section of Baltimore City Medical Society, May 14, 1958.

* Mercy Hospital.

PUBLICATIONS BY THORACIC SURGERY STAFF MEMBERS

- COWLEY, R. A. and LOMBANA, S.: A Method for Continuous Sampling of the Portal Venous Blood, *Bull. School Med., Univ. Maryland* 43: No. 1, Jan. 1958.
- COWLEY, R. A. and CODINGTON, J. B.: Complete Intrathoracic Goiter Simulating an Aneurysm of the Ascending Aorta, *J.A.M.A.* 167: No. 4, May 24, 1958.
- ESMOND, W. G. and COWLEY, R. A.: Single Use Disposable Disc Oxygenator for Open Heart Surgery, submitted for publication to *Am. Surg.*, 1958.
- BESSMAN, S. P. and COWLEY, R. A.: Origin and Utilization of Ammonia in Shock: A Study of Venous, Arterial and Portal Ammonia Levels, *Int. Soc. for Surgery*.
- ESMOND, W. G. and SMITH, A.: The Structure of Adult Peripheral Myelinated Nerve Fibers As Revealed by Phase Microscopy, *Exp. Cell Research* 14:430, 1958.
- ARMSTRONG, B. W., GOLDENTHAL, S. and LOWMAN, R. M.: Roentgen Studies of Ventilatory Dysfunction: An Analysis of Diaphragmatic Movement in Obstructive Emphysema, *Am. J. Roentgenol.* 79: No. 2, 1958.

Residents:

PAUL M. DiGIORGI

TOUFIC E. HADDAD

CHARLES G. PEAGLER

Assistant Residents:

SAFUH ATTAR

CONSTANTIN G. CHARONIS

OPERATIONS, UNIVERSITY HOSPITAL—THORACIC SURGERY

	<i>Private</i>	<i>Clinical</i>
<i>Cardio-Vascular:</i>		
Aortic valvulotomy	3	0
Pulmonary vein, anomolous	0	0
Patent ductus	3	1
Mitral commissurotomy	14	4
Pulmonic valvulotomy (isolated)	0	1
Aortic coarctation	2	1
Pericardiopexy (Beck I)	11	2
Selective vagotomy plus Beck I	10	1
Aortic aneurysms, graft	0	2
Adrenalectomy and sympathectomy (Bilateral)	1	0
Pericardotomy I and D	0	2
Hufnagel valve insertion	1	0
Thromboendarterectomy	1	0
Pericardio cutaneous fistula	0	1
	45	15
<i>Open Heart:</i>		
Interventricular septal defect	4	3
Mitral commissurotomy and tricuspid valvulotomy	2	0
Mitral valve plication	1	0
Exploratory cordiotomy	1	0
Aortic valvulotomy	3	0
Interatrial septal defect	3	0
Aortic and mitral valvulotomy	1	0
Interatrial defect and pulmonary stenosis	1	0
Pulmonic valvuloplasty	0	3

OPERATIONS—THORACIC SURGERY (Continued)

	<i>Private</i>	<i>Clinical</i>
Pulmonic valvuloplasty and ligation of ductus.....	0	1
AV Communis	1	0
I.V.S.D. and P.S. (in infundibular stenosis).....	2	2
	19	9
<i>Diagnostic Procedures:</i>		
Angiogram	3	5
Aortogram (retrograde)	5	9
Lymph node biopsy.....	0	2
Scalene node biopsy.....	2	4
	10	20
<i>Mediastinum:</i>		
Drainage	0	2
Biopsy	0	1
	0	3
<i>Esophagus:</i>		
Esophagogastrectomy	3	3
Colon transplant	0	1
Ligation of varices.....	0	1
Foreign body removal.....	1	0
Diverticulum	0	1
Wound dehiscence and closure	0	1
	4	7
<i>Thorax:</i>		
Excision of bronchial cyst.....	1	0
Pectus excavatum (Funnel chest).....	1	2
Rib biopsy	0	1
Stab and gunshot wounds.....	0	9
Empyema drainage	0	7
Cervical rib (scalenous A.S.).....	1	0
Pericardial biopsy	0	1
Hiatus hernia	2	2
Thoracoplasty (initial)	0	1
Thoracoplasty (concomittant)	0	2
Sympathectomy, thoracic	1	1
Pleural biopsy (open).....	1	10
Scalene node biopsy.....	6	13
Excision of mediastinal cyst.....	2	0
Cranialplasty and partial rib resection.....	0	1
Repair of tracheo-esophageal fistula.....	1	0
Closed thoracotomy	5	24
Repair of esophageal perforation.....	0	1
	21	75
<i>Lung and Pleura:</i>		
Pleural biopsy	0	10
Lung biopsy and thoracotomy.....	7	5

OPERATIONS—THORACIC SURGERY (Continued)

	<i>Private</i>	<i>Clinical</i>
Lung abscess and drainage.....	0	3
Lobectomy	3	13
Lobes plus segmentals.....	0	4
Segmentals	1	5
Pneumonectomy	7	7
Wedge resection	2	3
Decortication	0	1
Excision of tuberculoma.....	1	2
	21	53

N.B. Bronchoscopies are routinely done by the Division of Thoracic Surgery on all patients coming to surgery. Angiocardiography and aortography by the Division of Thoracic Surgery on all cardiac cases where it is deemed necessary.

OPERATIONS, MERCY HOSPITAL—THORACIC SURGERY

Rib resection	6	Biopsy of mediastinal tumor.....	1
Esophageal resection	1	Biopsy, pleura	9
Excision of pulmonic cyst	1	Thoracoplasty	1
Biopsy of scalene node.....	10	Mitral commissurotomy	4
Thoracotomy (closed)	3	Excision of thoracic gland	1
Thoracotomy (open)	1	Excision of mediastinal gland	1
Pneumonectomy	8	Cardiac catheterization	1
Decoartcation of lung.....	4	Ligation of patent ductus arteriosus	1
Lobectomy	10	Excision of supra-clavicular mass	1
Biopsy of chest wall node	2	Repair of dyaphragmatic hernia	
Exploratory thoracotomy	13	(thoracic approach)	1
Biopsy of lung	5	Esophago-gastric anastomosis	1
Extra-pleural pneumonolysis	1		
			87

OPERATIONS, MOUNT WILSON SANITORIUM—THORACIC SURGERY

Pneumonectomies	18	Thoracotomy with religation	
Lobectomies	48	pulmonary artery	1
Segmentals	46	Thoracotomy, ligation of bleeders	2
Lobectomy plus segmental.....	16	Thoracotomy, removal of sponge	1
Segmental plus thoracoplasty.....	2	Empyema drainages	4
Lobectomy, segmental plus thoracoplasty	7		
Lobectomy, segmental plus thoracoplasty	1		174
Segmental, removal lucite balls		Pneumonectomy for carcinoma	2
and thoracoplasty	1	Lobectomy for carcinoma	1
Pneumonectomy, removal lucite balls	1	Repair of coarctation of aorta	1
Decortication	1		
Schede thoracoplasty	2		4
Thoracotomy with biopsy	4		
Intercostal neurectomy	1	Bronchoscopy	343
Thoracoplasty and muscle flap closure BPF	3	Bronchoscopy with biopsy	21
Pre-resectional thoracoplasty	6	Esophagoscopy	1
Post-resectional thoracoplasty	5		
			365

OPERATIVE DEATHS - SURGICAL SPECIALTIES
CLINICAL SERVICE

Thoracic Surgery: 3

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
140-4-02	H.D.	Carcinoma of the esophagus, middle third	Esophagogastrectomy	Myocardial infarction	Yes
145-5-25	R.C.	Cirrhosis Spontaneous rupture of esophagus, bilateral empyema Paralytic ileus	Thoracotomy Drainage of empyema Thoracotomy, left Posterior esophagotomy	Myocardial failure Pulmonary edema	No
137-9-55	E.D.	Post-traumatic complete pneumothorax Brain damage, possible head trauma	Bilateral trephines	Thrombosis of mid-cerebral artery	Yes

OPERATIVE DEATHS - SURGICAL SPECIALTIES
PRIVATE SERVICE

Thoracic Surgery: 12

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
108-8-22	R.L.	Chronic rheumatic heart disease with panvalvulitis Mitral insufficiency, tricuspid insufficiency and aortic stenosis	Mitral valvulotomy	Cardiac failure	Yes
142-9-11	D.S.	Patent ductus arteriosus Hypoplasia of aorta, Electrolyte imbalance	Ligation of patent ductus under hypothermia	Hyperpo- tasmia Cardiac arrest	Yes
084-2-03	L.H.	Mitral and aortic stenosis and insufficiency Tricuspid insufficiency	Mitral commissurotomy Plication of tricuspid	Cardiac failure	Yes
135-9-94	E.B.	Carcinoma of the esophagus	Esophagogastrectomy	Esophageal obstruction	Yes
147-3-71	W.S.	Sliding esophageal hiatus hernia	Trans-thoracic diaphragmatic repair	Pulmonary embolus	Yes
145-0-07	R.M.	Patent ductus arteriosus Large right ventricle with small hyperplastic left ventricle Large interventricular septal defect	Exploratory cardi- otomy with pump oxygenator	Myo-cardial failure	Yes
138-7-19	F.S.	Pulmonary stenosis A.V. Communis	Pulmonary valvulotomy	Cardiac arrest	No

OPERATIVE DEATHS - SURGICAL SPECIALTIES

PRIVATE SERVICE

Thoracic Surgery: 12—(Continued)

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
143-8-22	T.G.	Tricuspid with type 1 B with interatrial and interventricular septal defect	Exploratory cardiotomy	Myocardial failure Pulmonary congestion	Yes
138-7-92	L.L.	Rheumatic chronic vascular disease, calcified Aortic stenosis	Trans-aortic valvulotomy	Cardiac arrest	Yes
141-2-58	A.W.	Trunkus arteriosus	Exploratory thoracotomy	Myocardial failure Pulmonary congestion	No
151-2-78	W.M.	Pulmonary atresia Interventricular septal defect	Pulmonary artery graft Repair of I.V.S.D.	Pulmonary edema	Yes
147-0-56	S.B.	Mitral Stenosis	Mitral commis-surotomy	Cardiac failure	No

NONOPERATIVE DEATHS

PRIVATE SERVICE

Thoracic Surgery: 1

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Cause of Death</i>	<i>Autopsy</i>
055-8-74	W.R.	Pulmonary emphysema with emphysematous bulla, bilateral	Congestive heart failure	Yes

OPEN HEART OPERATIONS

<i>Race</i>	<i>Sex</i>	<i>Name</i>	<i>Date</i>	<i>Diagnosis</i>	<i>Pump Time</i>	<i>Age</i>	<i>Lived</i>	<i>Pump</i>	<i>Flow</i>	<i>HCT</i>	<i>Ph</i>
W	M	Kazmiezak	5-17-57	Left SVC, T.F.	120 min.	3 yr.	16 hr.	Sigma disc		48	C.74
W	M	Voytko	9-11-57	A.V. communis	52 min.	16 mo.	on table ½ hr.	Sigma disc		29	7.22
W	F	Simon	9-18-57	P.S., I.A.D.	51 min.	44 yr.		Sigma disc		31	7.35
W	F	Morrison, R.	12-23-57	Common atrium I.V.S.D.	42 min.	6 wks	on table ½ hr.	Sigma disc			

OPEN HEART OPERATIONS

<i>Race</i>	<i>Sex</i>	<i>Name</i>	<i>Date</i>	<i>Diagnosis</i>	<i>Pump Time</i>	<i>Age</i>	<i>Lived</i>	<i>Pump</i>	<i>Flow</i>	<i>HCT</i>	<i>Ph</i>
W	M	Walton, M.	12-19-57	A.S.	38 min.	40 yr.	O.K.	Sigma disc	65		
W	F	Lee, G.	12-30-57	A.P. window	71 min.	4 yr.		Sigma disc			
W	M	Hill, Loy	1-9-58	M.S. & I. T.I.&A.S.	45 min.	21 yr.	1 mo. O.K.	Pump No. 1			
W	M	Givens, J.	1-15-58	A.V. communis	19 min.	2 mo.	5½ hr.	Sigma disc			
W	F	Lampron, L.	1-30-58	A.S. & aneurysm of ascending arch	60 min.	48 yr.	on table	Pump No. 1			
W	M	Serrono, L.	2-5-58	I.V.S.D.	28 min.	11 mo.	O.K.	Sigma disc			
W	M	Bew, Wm.	3-19-58	I.V.S.D.	52 min.	9 yr.	O.K.	Pump No. 1	65	42	7.23
W	F	Smith, B.	4-9-58	M.I.	34 min.	33 yr.	O.K.	Pump No. 1	65	41	7.63
W	M	Williams, A.	Inoperable			20 mo.					
C	F	Tucker, Liz	5-7-58	I.V.S.D.	75 min.	2 yr.	O.K.	Pump No. 1	42		7.32
W	M	Appel, Wm.	5-9-58	P.S. I.V.S.D.	32 min.	5 yr.	O.K.	Pump No. 1	90		
W	M	Paolino, D.	5-14-58	P.S. I.V.S.D.	64 min.	7 yr.	O.K.	Pump No. 1	87	42	7.19
W	F	Milliken, W.	5-21-58	Pulmonary Atresia I.V.S.D.	135 min.	13 mo.	24 hr. ?	Pump No. 1	65	45	7.25
W	M	Martin, R.	5-23-58	Aortic I.	59 min.	41 yr.	O.K.	Pump No. 1	Hypothermia 28	41	7.23
W	F	Lindauer, J.	5-26-58	I.V.S.D., P.S.			O.K.	Pump No. 1		42	7.55
W	M	Addison, W.	5-28-58	I.V.S.D.	31 min.	4 yr.	O.K.	Pump No. 1			

DIVISION OF UROLOGY

This Division is under the capable direction of Dr. John D. Young, Jr.; there have been no new additions to this staff in the past 12 months. There has been likewise no increase in the number of ward beds available to the resident staff nor has there been any increase in operation room space. While many of the urologic patients are hospitalized for relatively short periods and thus make rapid patient rotation feasible, the overall urologic experience is barely adequate as judged by minimum standards.

The Outpatient urologic section is an exceedingly active one and affords the resident staff and students a satisfactory experience. Its size and activity is undoubtedly curtailed somewhat by the inability to hospitalize those patients who need hospitalization, promptly and expeditiously.

The very active cystoscopic unit within the hospital has made available to the men assigned there considerable knowledge and experience. The well-trained, efficient nursing staff in this unit is to be commended for the efficient use of this unit. It is necessary, still, to undertake certain operations upon the prostate gland in this area because of the lack of operation room space and time, a practice which is undesirable and possibly dangerous. Renovations in this unit during the past year have made it a more attractive place to undertake patient care and have added to its efficient operation.

Because of the bed and operation room shortage at the University Hospital a worthwhile supplement to the resident training program has been attained through house staff and visiting staff participation in diagnosis and treatment of urologic disease at the Montebello Rehabilitation Hospital and the Mt. Wilson State Tuberculosis Hospital. Assistant residents in this Division have been assigned, also, for three-month periods, to the Fort Howard Veterans Hospital where excellent experience, and a broadened knowledge of the fundamentals of Urology have been most ably taught by Dr. Herman Meisel, Instructor in Urology.

The following are the regularly scheduled teaching events in the Urology program for students and house officers:

Monday	4:30-6:00 P.M.	Ward Rounds
Tuesday	4:30-6:00 P.M.	Urology X-ray Conference
Thursday	4:30-6:00 P.M.	Urology Staff Conference
Friday	4:30-6:00 P.M.	a) Chart Conference, alternating with b) Pathology Conference

In addition to the outpatient clinical experience afforded Junior students and the limited contact by Senior students who chose this service for a portion of their surgical training, a series of twelve whole-class lectures on the fundamentals of Urology were given; a short series of discussions were given both Junior and Senior students on Pediatric Urology while these classes were assigned to the Pediatric service. The Division participated in a student seminar on cancer of the bladder.

Several lectures were given by the resident staff in Urology to the students in the Nursing School.

During the course of the year five seminars were held jointly with the Urologic staff of the Johns Hopkins Hospital. These dealt with Renal Physiology, Embry-

ology of the urinary tract, Pyelonephritis, Management of the Neurogenic Urinary tract and on Calcium Metabolism.

The research program in this Division has dealt largely with a study of Radio-active diodrast Renography in the diagnosis of renal disease. Mr. Charles Silberstein, a student fellow in the Department, participated actively in this study.

This is the first year this Division has had co-residents in its training program. In retrospect this appears to have been a satisfactory arrangement and the work accomplished by these two men adequate and effective. In the coming year, this appointment will be continued with a definitely scheduled sphere of activity assigned to each man; one of the residents will be in charge of the ward service and responsible for consultation with other services. He will also be responsible to the chief of the Division for the diagnostic and operative procedures on all ward inpatients. The second resident will be in charge of the outpatient service and will visit the hospitals at Montebello and Mt. Wilson. The four assistant residents appointed in the junior grades of this Division will gain their experience on the ward and private services at the University Hospital and at Fort Howard Veterans Hospital.

The plans and problems of the future in this Division are essentially two in number:

1. An acute lack of ward patient beds for prompt and adequate care of patients who came to the outpatient or accident rooms areas for diagnosis and treatment. (An ancillary shortage, but one equally crucial is the lack of operation room space.)
2. Lack of an organized research program. This can be effectively mastered when another full-time urologist at the University Hospital becomes available.

PUBLICATIONS BY UROLOGY STAFF MEMBERS

- YOUNG, JR., J. D. and GOMEZ-REGUERA, L.: Renal Function after Prolonged Ureteral Obstruction, *Rev. Urol.* Vol. XV, No. 5, Sept.-Oct. 1957.
- YOUNG, JR., J. D. and SACKS, M. S.: Prostatectomy in a Hemophiliac, *J. Urol.* 78: No. 5, Nov. 1957.
- YOUNG, JR., J. D.: Abdominal Symptoms from Urologic Disease in Childhood (in preparation for publication).
- PIPIS, G., LIMA, C. and YOUNG, JR., J. D.: Spontaneous Urinary-Cutaneous and Urinary Enteric Fistulae (in preparation for publication).
- YOUNG, JR., J. D., WORKMAN, J. B. and SILBERSTEIN, C.: The Use of Radio-Active Renogram in the Diagnosis of Renal Disease (in preparation for publication).

LECTURES

Dr. John D. Young, Jr.:

- "Management of Urinary Calculi," "Significance of Hematuria," "Management of Urinary Infection," and "Urologic Problems in Children," Caribbean Cruise, Nov. 29 through Dec. 6, 1957.
- "Office and Hospital As a Factor in Urinary Infection," State Medical Meeting Round Table Discussion, Apr. 17, 1958.

*Dr. Vincent Mikoloski**

- "Renal Physiology," Panel Discussion, Federation Meeting in Philadelphia, Mar. 1958.

* Surgical House Officer.

Co-Residents:

BOYOUK FARVAR

GEORGE PIPIS

Assistant Residents:

WALTER HIMMLER

VINCENT MIKOLOSKI

OPERATIONS, UNIVERSITY HOSPITAL—UROLOGY

	<i>Private</i>	<i>Clinical</i>
<i>Ureter:</i>		
Ureterocystotomy	3	2
Ureterolithotomy	8	5
Uretero-Neocystoscopy	0	1
Ureteroplasty	3	8
	14	16
<i>Bladder:</i>		
Cystectomy	3	4
Cystotomy	10	8
Cystoscopy	872	515
Litholapaxy	25	17
T U R or Fulguration Tumor	25	15
T U R Biopsy Lesion	14	10
Cystoscopy & Retrograde Pyelogram	323	350
Cystoscopy & Endoscopy	60	71
Repair Ruptured Bladder	1	2
Total Cystectomy—Isolated Uretero-Ileostomy	5	3
Segmented Resection of Bladder	0	0
Repair Vesico Vaginal Fistula	1	0
	1,339	995
<i>Prostate:</i>		
T U R Prostate	113	70
Prostatectomy, retropubic, simple	40	25
Prostatectomy, retropubic, radical	4	1
Prostatectomy, suprapubic, simple	13	10
Prostatectomy, suprapubic, radical	1	0
Prostatectomy, perineal, simple	3	15
Prostatectomy, perineal, radical	3	2
	177	123
<i>Kidney:</i>		
Nephrectomy	20	19
Biopsy	2	1
	22	20
<i>Urethra:</i>		
Urethral dilations (Male & Female)	732	125
Urethrotomy	3	2
I & D urethral abscess	0	2
Excision urethral diverticulum	2	0
	737	129

OPERATIONS—UROLOGY (Continued)

	Private	Clinical
<i>Female Urethral and External Genitalia:</i>		
Salpingogram	40	20
Proctoscopy	42	22
	82	42
<i>Penis:</i>		
First stage hypospadias	6	5
Second stage hypospadias	7	4
Meatotomy	32	10
Circumcision	25	75
Amputation with radical bilateral groin node resection	0	1
Phallotomy	0	2
	70	97
<i>Scrotum and Contents:</i>		
Vasectomy	24	2
Biopsy of Testes	0	1
Nephrostomy	2	2
Exploration Kidney—Removal renal cyst	5	11
Heminephrectomy	5	3
Repair Ruptured Kidney	1	1
Pyelolithotomy	6	5
Pyeloplasty	2	1
Nephro-Ureterectomy	4	2
	49	28
<i>Testes:</i>		
Biopsy	1	1
Orchiopexy	12	10
Orchiectomy	18	15
	31	26
<i>Seminal Vesicles:</i>		
Seminal Vesiculectomy	1	1
<i>Spermatic Cord:</i>		
Hydrocelectomy	14	5
<i>Epididymis:</i>		
Epididymectomy	2	3
Epididymi-orchectomy	3	2
	5	5
<i>Miscellaneous:</i>		
Aortogram	3	3
Differential renal function studies	24	35
Biopsy of cervical lymph nodes	0	0
Ventricular Urethral Shunt	0	2
Retroperitoneal abscess	1	1
Biopsy of same	1	1
Repair of bladder extrophy	1	1
1 & D Periurethral abscess	0	3

OPERATIONS—UROLOGY (Continued)

	<i>Private</i>	<i>Clinical</i>
Hernioplasty	7	5
Repair Urethral Fistula	0	2
Adrenalectomy	1	2
Retroperitoneal node dissection	2	3
Urethral suspension	0	1
	40	59

OPERATIVE DEATHS - SURGICAL SPECIALTIES

CLINICAL SERVICE

Urology: 11

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
035-1-57	W.C.	Carcinoma of the bladder with metastasis	T.U.R.	Carcinomatosis	No
136-5-86	D.F.	Neuroblastoma, right retroperitoneal space	Biopsy Right Nephrectomy Partial excision of tumor	Carcinomatosis	No
100-8-53	E.L.	Carconoma of the bladder with metastasis	Diversion of urine to ileal loop; secondary closure of abdominal wound	Peritonitis	Yes
145-1-82	E.C.	Perforated duodenal ulcer Ileo-vesical fistula	Closure of ulcer T.U.R. Repair ileo-vesical fistula	Pneumonia	No
146-4-50	A.B.	Carcinoma of the bladder with metastasis	Uretero-ureteral anastomosis Right cutaneous ureterostomy	Carcinomatosis	Yes
138-7-72	I.H.	Carcinoma of the bladder with metastasis	Diversion of urine to ileal-loop	Peritonitis	Yes
119-0-82	A.J.	Carcinoma of the kidney left with metastasis	Exploratory laporatomy Biopsy of kidney	Carcinomatosis	Yes
138-0-55	J.V.	Urethral stricture with retention	Cystotomy	Uremia	No
137-8-63	H.J.	Suppurative orchitis bilateral B.P.H. Fractured Hip	Hip nailing T.U.R.	Broncho- pneumonia Cerebral thrombosis	No
144-5-18	W.S.	B.P.H. Heart failure	Retropubic prostatectomy	Cardiac failure	No
137-3-60	B.C.	Papillary carcinoma right renal pelvis with metastasis	Rt. nephro- ureterectomy	Carcinomatosis	Yes

OPERATIVE DEATHS - SURGICAL SPECIALTIES

PRIVATE SERVICE

Urology: 7

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Operation</i>	<i>Cause of Death</i>	<i>Autopsy</i>
137-9-34	D.D.	Malignant Hypertension	C & R	Malignant	No
		Chronic pyelonephritis	Perforation urethra	Hypertension	
139-1-56	A.K.	Carcinoma of the right lung	C & R	Carcinomatosis	No
		Tumor of the left ureter			
149-6-85	W.K.	Carcinoma of the bladder	T.U.R. Biopsy	Septicemia	No
151-0-75	J.B.	Hematuria	C & R	Embolism left cerebrum	No
				Broncho- pneumonia	
144-5-03	T.B.	Benign prostatic hypertrophy	Retropubic Prostatectomy	Coronary Thrombosis	No
137-3-60	M.F.	Carcinoma of the vulva with local extension and metastasis	Supracystostomy Colostomy	Carcinomatosis Uremia	No
137-5-71	H.W.	Carcinoma of the bladder	Cordotomy	Carcinomatosis	No

NONOPERATIVE DEATHS

CLINICAL SERVICE

Urology: 1

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Cause of Death</i>	<i>Autopsy</i>
143-6-15	G.L.	Possible carcinoma of the bladder	Acute renal failure	No

NONOPERATIVE DEATHS

PRIVATE SERVICE

Urology: 3

<i>Hosp. No.</i>	<i>Initial</i>	<i>Primary Diagnosis</i>	<i>Cause of Death</i>	<i>Autopsy</i>
154-0-82	H.S.	Acute urinary retention	Membranous Colitis	Yes
137-7-95	C.L.F.	Carcinoma of the prostate	Cardiac failure	Yes
140-3-34	R.D.	Cerebellar thrombosis	Cerebellar thrombosis	Yes

SUMMARY

The members of the Department of Surgery have emphasized in this report the highlights of the day-to-day activities as they are recalled at the end of a 12-month period. It is most apparent that the deficiencies which the Department experiences each day are foremost in the mind of each. The good which may have been accomplished and the progress made does not, in retrospect, seem as important as that to be made were the wherewithal available to our needs. There is a discouraging repetitiveness to the needs of each division in the Department.

Patient Beds

This is and has been the outstanding need in the Department. It has resulted in:

1. A lack of varied clinical experience for both student and House Officers.
2. A lack of clinical investigative and research material.
3. A foreshortened rehabilitational period for the patient when this is required.
4. A disinclination to enlarge the teaching staffs in some divisions where there is a dearth of hospitalized patients, even though the Head of this Division is unable to encompass adequately the full requirements and his interests in his field.
5. An attenuated outpatient service in some divisions (*e.g.*, Thoracic Surgery, Neurological Surgery) because of the inability to admit patients from this area within a reasonable period of time.
6. A lack of teaching material in the outpatient areas in some divisions (see #5).

Nursing Shortage

It seems apparent from this report that most divisions have been able to function effectively and successfully despite periods when competent graduate nurses are unavailable for the care of or to supervise the care of the seriously ill or gravely injured patient. This speaks well for the service and intelligence of the practical nurse, but above all, for the careful attention given such patients by the House Officers of this Department. This is an undesirable and discouraging situation and little seems to have been done to correct it.

Operation Rooms

These are inadequate in number, insufficiently staffed, and their day-long use sharply curtailed.

The staff of the entire Department has, upon repeated occasions, expressed its bitterness upon this situation; and the reiterated suggestion of further curtailment of time and space as a solution to the deficit.

A great deal of sympathy and respect has been stated repeatedly for the constancy and efforts of that ever-decreasing nucleus of graduate nurses who have continued to try to keep this area functioning, albeit neither efficiently nor well.

Research Unit

The space in this area is already inadequate for the requirements of the Department. It is hoped that in the future this can be enhanced to the point that the unit will serve all divisions in this Department with freedom and living space. It is hoped that here or in a nearby installation an electronics laboratory can be set up on a full-time, year-round basis. This would be an important adjunct to the entire Department.

Non-patient Space

The Department has been unable to realize space for activities other than patient care. Physician and secretarial office space is practically unobtainable without sacrifice of patient bed space. This is little conducive to study, quiet thought or concentration. The productiveness of the Department is wanting by this lack.

Teaching Program

This program has shown some measure of improvement which is not readily definable. The members of this staff are oppressed by our inability to have a greater and longer student contact. It is suggested that this might be obtained through an 11-month Junior year (or a 12-month Senior year) to permit a greater coverage of materials now available in the hospital but not presented to all students equally.

Outpatient Area

This area is seriously handicapped by:

1. Lack of unit record system (and ready availability of all patients' *entire* record to the physicians in this area).
2. A cumbersome and inefficient screening area.

It is expected that these serious and long-standing deficits are under scrutiny for improvement. This has been accomplished in most other hospitals; surely it is not beyond our capacity.

The Department wishes to express its sincere appreciation for the sympathetic hearing it has had from the administrative officers in both school and hospital and for the support given it during the past year.

POSTGRADUATE COMMITTEE

GENERAL STATEMENT OF OPERATING PLAN AND IDEOLOGY

The report of this Committee for 1956-57 published in the *BULLETIN OF THE SCHOOL OF MEDICINE*, Volume 42, Number 5, December, 1957, contains certain preliminary statements that I believe are still valid and are essential for proper introduction to the subject matter of this report, and, I believe, it is essential that they be kept in mind if an intelligent reading of the report is to be had.

Medical education, subsequent to graduation from an acceptable medical school involving the granting of a diploma as a Doctor of Medicine, falls into the three natural subdivisions:

1. The first of these is designed to give a groundwork in clinical medicine as represented by an internship and further, to prepare men for specialties, as represented by residencies and fellowships. This type training, of course, is full-time and usually involves living in a hospital or other medical institution.
2. Graduate education, designed for very complete training in a certain branch of medicine and involving an additional degree, is a rarity in this country.
3. The third type, which is designed to keep a medical graduate abreast of advances in clinical medicine, is usually of an entirely different nature, and it is with this latter type that we are concerned.

The experience gained in endeavoring to foster a proper postgraduate program has been both rewarding and, in some measure, frustrating. It seems to me that the efforts of the Postgraduate Committee have been worthwhile and I believe that we have made a definite contribution to medical education, to the medical community, as well as the general community at large.

In considering our problem, it must be remembered that we do not have captive audiences available, such as undergraduate students, men attending for credit toward certification, men attending upon orders of some governmental agency, or an industrial plant for which they work.

Also, it must be remembered that we are not sending well-advertised "Star Speakers" to some medically backward community preceded by a great fanfare of publicity and provided with a more than liberal expense account.

On the contrary, our audiences must be obtained from a highly sophisticated group, in competition with other schools and with medical groups holding meetings of their organizations, and frequently heavily subsidized by commercially interested firms such as drug houses and others.

STAFF

In my opinion it is imperative that Mrs. Carroll's classification be altered so that it bears some relationship to her duties and responsibilities. Frankly, I am at a loss to know why it has been impossible heretofore to secure adequate official recognition of this need and I strongly urge that the situation be corrected by requesting that her classification be changed to Administrative Assistant which is infinitely more realistic than her present classification when her duties are considered.

TEACHING

Those inexperienced in this type activity are frequently convinced that the attaining of objectives is a very simple matter, that the proper preparation of a course entails little, if any, work, planning, or thought; further, that all that is necessary is to notify a certain portion of the medical community that the course will be given, following which an adequate audience will be had automatically.

Nothing can be further from the truth. We are constantly told of the success of postgraduate education in other communities and the attitude is that the Committee is unaware of these techniques and that we should approach the matter as has been done elsewhere. I desire to call attention to the fact that Kansas is frequently cited as a state university with a highly successful program. It is obvious that this is true. Many people fail to realize, however, that the program in Kansas has a tremendous financial backing and that the postgraduate school is an elaborate one with a very large staff. The Medical School in Kansas has accepted the responsibility for teaching the physicians of the state and one of their basic techniques is to send teams of instructors to hospitals throughout the state. Apparently they have been quite successful. In this regard, attention should be called to the fact that exactly the same plan was used by this Committee some years ago, and for several consecutive years was quite successful. As usual, interest eventually waned and requests for these courses dropped.

Within the last year, the Postgraduate Committee, by means of a questionnaire, communicated with all the hospitals in the state of Maryland in an effort to ascertain what, if any, interest they might have in a repetition of this endeavor. The replies were, unfortunately, discouraging because they evidenced no interest on the part of the hospitals for such instructions. Had we, with starry-eyed optimism planned an elaborate program of this sort at this time, it would have met unquestionably with inevitable failure. Everyone inexperienced in this work who has felt the urge to do postgraduate teaching almost invariably names the Academy of General Practice as the major group to receive such instruction. The Committee has been quite aware of this potential and has enjoyed the closest relationship with the Academy of General Practice but now finds that the saturation point, apparently, has been reached since the response from that group has steadily decreased. It must be remembered that these men are busy, many of them being in communities where relief cannot be obtained while they attend such courses. Consequently, attendance from this source of postgraduate students has definitely waned.

It must be remembered that the Academy of General Practice has numerous meetings, has its own postgraduate courses. The Academy is fully informed of postgraduate activities of other universities of which there is a plethora concen-

trated in this area. This is not true of Kansas. Actually the activities of the Academy of General Practice along this line have not met recently with the response previously enjoyed, as anyone who has been in touch with that organization and has attended its meetings must know. In addition to the activities of the University and the Academy of General Practice along postgraduate teaching lines there are also the medical societies which have made valiant efforts in this field.

Some years ago the Medical and Chirurgical Faculty planned and offered a rather elaborate program which, after an initial spurt of interest, rapidly declined to a state of complete desuetude. This was so true that the courses were discontinued. These facts are mentioned not as a suggestion that postgraduate activities should be suspended but rather as evidence that a great deal more thought must be given to the subject if we are to have an active and worthwhile program at this institution. After a rather wide experience, it would seem that the proper course for us is to discover the areas of need, and surely there are such areas, and to develop outstanding programs to satisfy such needs. As evidence of this I would call attention to the Basic Science Course and the Clinical Anatomy Course which have been well attended and successful in general. After a great deal of thought and discussion with representatives from industry, a course in Industrial Medicine has been planned. We hope that this course will join our list of successful ones offered by the Committee and that it may continue on as they have for years to come. We were advised by Dr. Haskins that the monthly Ob.-Gyn. lectures at the Peninsula General Hospital in Salisbury and at the Easton Memorial Hospital in Easton continue to serve a very real purpose and, therefore, we will continue to sponsor them.

STATISTICAL ANALYSIS AND WORK DONE AND SERVICE RENDERED

Weekly television show over WBAL-TV.

Twenty-one-week course in Basic Sciences. Enrollment: 50 physicians.

Clinical Anatomy course, 15 weeks' duration. Enrollment: 17 surgeons.

One-day seminar for the Maryland Academy of General Practice on May 8.

Seventy-five attended.

A 2-day course in Industrial Medicine is planned for October 16 and 23. The course will be designed to be of interest to Industrial Physicians and Nurses, Plant Personnel Managers, Safety Engineers, etc.

Anatomy of the Head as Applied to the Ear, Nose, and Throat, ten weeks' duration. Enrollment: 3 students.

Monthly Ob.-Gyn. lectures at Peninsula General Hospital and Easton Memorial Hospital continued.

Cooperated with the School of Law in arranging for a medico-legal course on the subject of Cardiology. This was a success and it is expected that more courses of this nature will be given.

Cooperated with the Psychoanalytic Society of Baltimore through the Department of Psychiatry in doing office procedures associated with a four-day course in Psychiatry. Enrollment in this course exceeded all expectations.

Cooperated with Maryland County Medical Societies as well as with the Delaware Academy of General Practice in furnishing speakers for their meetings.

Provident Hospital activity has been discontinued upon instruction from the Dean who feels that our efforts have served no useful purpose.

FACILITIES AND EQUIPMENT

The Postgraduate Committee has excellent office facilities. We wish to report that the Committee's closed circuit television equipment has been improved and modernized and is available for use by any department making a request through the Postgraduate Office. If we are notified far enough in advance, we will be able to obtain the services of a professional cameraman.

COMMUNITY SERVICE

TV-MD, a weekly telecast over station WBAL-TV in Baltimore under the aegis of the Postgraduate Committee, has completed its 7th consecutive year. This is the oldest medical television show in the country as far as we know. Even though the show has enjoyed a rating that is considered excellent in the television industry for a public service program, we do not feel that we have reached the ultimate in excellence and therefore this year a concentrated effort will be made to raise the standards to the highest possible level.

PUBLICATIONS BY POSTGRADUATE COMMITTEE

Our weekly publication, *Calendar of Events*, is being continued. An innovation that has seemingly met with approval is the publication therein of pictures and professional data on members of the faculty.

RECOMMENDATIONS FOR IMPROVEMENT

Medical Faculty for the Postgraduate Committee

It does not seem advisable to attempt the creation of a special Postgraduate Committee faculty. We have attempted to be helpful in some degree to the department participating by paying lecturers and also making sums available to the department from time to time to assist them in their work. However, the Committee regrets that because of a directive of the University it will no longer be possible to offer honoraria to full-time faculty members for Postgraduate teaching.

Audiovisual Subcommittee

It is with regret that we announce the resignation of Dr. E. R. Shipley as Chairman of the Audiovisual Subcommittee. Dr. Shipley feels this move is necessary because of the pressure of other interests. For the time being, Dr. Howard M. Bubert will serve as Chairman of this Subcommittee.

STUDENT HEALTH DEPARTMENT

SEPTEMBER 1957 TO JUNE 1958

JAMES R. KARNS, M.D., *Physician in Charge of Student Health*

Number of students' visits to office . . . 1228*

Freshmen	320
Sophomores	365
Juniors	281
Seniors	210
Others	16
Physiotherapy School	36

Number of students visited at home 2

Sophomores	1
Juniors	1

Number of days in student disabilities . . 340

Freshmen	1.11 days/student	109
Sophomores	.31 days/student	38
Juniors	1.53 days/student	138
Seniors	.61 days/student	57

Examinations and Treatments by Attending Physicians and Surgeons 104

Accident Room	5
Dr. Adams	3
Dr. Brumback—refractions	7

Dr. Bubert—Allergy Clinic	2
Dr. Capuccio	1
Dr. Cross	1
E.N.T. Clinic—Dr. Blanchard	15
Dr. Monte Edwards	1
Dr. Gerlach	1
Dr. Greenstein	1
Dr. Michael—Looper Clinic	3
Dr. Magruder	4
Dr. Mansberger	1
Dr. Ozazewski—Refractions	19
Dr. H. Robinson—Skin Clinic	2
Dr. Raymond C. V. Robinson	15
Dr. Shipley	1
Dr. Siwinski	1
Dr. Ullrich	2
Dr. Will	2
Dr. Yeager	2
Dr. Young—G. U. Clinic	15

* The 203 Asian Flu vaccine immunizations, the 154 Salk vaccine immunizations and 504 tuberculin patch tests have not been included in "office visits."

CHARACTER OF CASES TREATED

Respiratory Infections 349

Bronchitis	3
Catarrhal pharyngitis	3
Cough	26
E.N.T. Consultations	3
Grippe	27
Influenza	25
Nasal congestion	13
Nasopharyngitis	233
Pharyngitis	10
Postnasal drainage & cough	1
Sinusitis, maxillary	3
Status asthmaticus	1
Staphylococcus pneumonia	1
Spontaneous pneumothorax	1

Allergic Diseases 10

Allergic rhinitis	8
Hay fever	2

Circulatory Disturbances 7

Angioneurotic edema	1
Elevated blood pressure	2
Heart consciousness, no pathology	3
Heart murmur	1

Dental Clinic 57

Freshmen	11
Sophomores	22
Juniors	14
Seniors	10

Bleeding gums	3	<i>Immunizations</i>	383
Extractions	1	Asian influenza	203
Gingivitis	4	Diphtheria	2
Infected wisdom tooth	1	Rat bite desensitization	1
Impacted wisdom tooth	3	Rabbit scratch desensitization	1
Root canal work	1	Gamma globulin	3
Referrals to dental clinic	41	Salk vaccine	154
Toothache	3	Smallpox vaccination	8
<i>Dermatology</i>	94	Tetanus toxoid	7
Aphthous ulcers	4	Typhoid and paratyphoid	4
Athlete's foot	5	<i>Miscellaneous Complaints</i>	67
Callus	1	Animal scratches, bites	2
Cyst	3	Abdominal pain	1
Dandruff	5	Chest pain, no pathology	4
Dermatitis, various complaints	15	Epistaxis	2
Dryness and cracking skin	1	Family consultations	10
Eczeimatus rash	1	Goiter, non-toxic	1
Erythema toxic	1	Ganglion	1
Fungus infection	1	Hemoptysis	3
Furuncles	7	Hoarseness	1
Folliculitis	3	Headaches	5
Herpes simplex	4	Herpes Zoster	1
Neurodermatitis	1	Ingrown toenail	2
Poison ivy	3	Exposure to infectious hepatitis	1
Rosacea	1	Exposure to measles	2
Seborrheic dermatitis	3	Palpable glands	3
Sycosis vulgaris	1	Pleurodynia	1
Tinea versicolor	1	Pleural effusion	1
Trichophytosis inguinale	7	Physical examinations for intern- ship, license, etc.	21
Urticaria	4	Reaction to influenza vaccine	1
Ulcers mouth	4	Swollen ankles	1
Referrals to Dermatology Clinic	18	Syncope	1
<i>Gastro-Intestinal</i>	43	Weight control	2
Abdominal cramps	3	<i>Psychiatry</i>	28
Constipation	2	Anxiety about disease	16
Diarrhea	7	Chronic status asthmaticus	1
Gastroenteritis	12	Personal problems	2
Lower right quadrant pain, n.p.	1	Psychiatric consultations at re- quest of Student Health Dept.	4
Upper right quadrant pain	1	Tension state	5
Pylorospasm	3	<i>Ophthalmologic</i>	69
Visceral spasm	14	Chalazion	2
<i>Genito-Urinary and Gynecology</i>	30	Conjunctivitis	5
Dysmenorrhea	6	Eyestrain	29
Hematuria	1	Foreign body	4
Prostatitis, non-specific	2	Meibomian cyst	2
Prostatitis, chronic	13	Muscae volantis	1
Renal calculus	1	Refractions	23
Testicular tumor malignant	1	Freshmen	2
Spermatocele	1	Sophomores	13
Trichomonas vaginitis	1	Juniors	6
Urethral meatotomy	3	Seniors	2
Varicocele	1		

Stye	2	Boil	1
Visual field defect	1	Burns	3
<i>Orthopedic</i>	31	Contusion	1
Ganglion wrist	2	Cuts—hand	2
Fracture	1	Cyst, mucoid	1
Infected extremities	2	Furuncle incised	1
Ingrown toenail	2	Inguinal hernia repaired	1
Joint pain	1	Laceration	1
Low back pain	2	Puncture wound	1
Myositis	6	Testicular tumor and infected glands	1
Numbness, no pathology	2	Infected hair follicle	1
Pains in thighs	1	Hemorrhoidectomy	1
Myalgia	2	Sclerotic mastoid process	1
Sacroiliac tenderness	1	<i>Studies</i>	656
Sprains and strains	5	Blood cholesterol	1
Tenosynovitis	1	Blood sugar	1
Torticollis	2	Cytology	1
Traumatic ischeitis	1	Differential	22
<i>Otorhinolaryngologic</i>	31	Gastric analysis	7
<i>Ear:</i>		Glucose tolerance	2
Cerumen	6	Hematocrit	9
Congestion in ear	1	Hemoglobin	2
Eustachian catarrh	2	Heterophile agglutination	2
Infected follicle canal	1	Platelets	1
Labyrinthitis	1	Prostatic cultures and smears	3
Otitis media	2	Prothrombin time	1
Sclerotic mastoid process	1	Radio-iodine uptake	1
<i>Mouth:</i>		Sedimentation rate	4
Lesion on mouth, no pathology	1	Sensitivity	1
<i>Nose:</i>		Serologic test for syphilis	12
Maxillary sinusitis	7	Smears	11
Nose bleeds	2	Sputum culture	3
Obstruction nasolacrimal duct	1	Stool culture	3
<i>Throat:</i>		Thoracic fluid culture	1
Hoarseness	1	Thoracic specific gravity	1
Streptococcal infection throat	2	Thoracic white cell count	1
Tonsillitis	1	Thymol	1
Tracheitis	2	Tuberculin patch tests	504
<i>Proctology</i>	14	Urinalyses	25
Anal fissure	1	Van den Bergh	1
Hemorrhoids, external	5	White blood count	35
Perianal verrucae	1	<i>Treatments</i>	courses, 46
Pilonidal sinus	4	Allergy injections	17
Pruritus ani	1	Bicillin	2
Rectal bleeding, no pathology	2	Cortisone	1
<i>Specific Infectious Diseases</i>	10	Gantricin	1
Infectious mononuclosis	7	Ilotycin	17
Rubella	3	Penicillin	4
<i>Surgical</i>	17	Physiotherapy	1
Abscesses	1	Hydrocortisone	1
		Vitamin	2
		<i>Warts and Moles Removed</i>	14
		<i>Miscellaneous X-Rays</i>	23
		Barium enema	1

Barium swallow	1	Intravenous pyelogram	5
Cystoscopy	1	Scintogram	1
Gallbladder and gastrointestinal series	1	Miscellaneous orthopedic	13
		Electrocardiogram	1

HOSPITALIZATIONS

11 Students \$3,274.50

<i>Freshmen</i>	<i>Diagnosis</i>	<i>Cost</i>
Friedman, M. L.....	Testicular tumor (malignant)	\$1,076.00

Juniors

Mailman, C.	Hemoptysis	151.20
Hanauer, F. A.	Infectious mononucleosis	148.00
Gardiner, T. D.	Staph. pneumonia	956.75
Mailman, C.	Status asthmaticus	121.90
Mailman, C.	Status asthmaticus	266.45

Seniors

Greene, F. P.	Abscesses	115.00
Karpa, J. N.	Pleural effusion	424.70

Accident Room

Normanly, J.	First Aid, toxoid	4.50
Morton, J. C.	First Aid, serum rabbit scratch	5.50
Berman, M.	First Aid	4.50

Cost of Laboratory Studies	403.50
Cost of Medications to Students	738.23
Cost of Dental X-rays	116.50
Cost of Chest and Miscellaneous X-rays	617.00
Cost of Physiotherapy Treatments	15.00

TOTAL	\$1,890.23
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GRAND TOTAL	\$5,164.73
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UNIVERSITY HOSPITAL

ADMISSIONS AND PATIENT DAYS—FISCAL YEAR 1957-1958

<i>Department</i>	<i>Admissions</i>	<i>Patient Days</i>
General Surgery	2,900	35,001
Neuro-Surgery	892	16,452
Orthopedics	281	4,917
Thoracic Surgery	164	2,629
Urology	767	9,882
Ear, Nose, Throat	155	1,046
Ophthalmology	15	106
Oral Surgery	15	139
Proctology	4	46
Plastic Surgery	5	33
Medicine*	3,472	53,617
Psychiatry	377	20,732
Pediatrics	889	14,482
Newborn	3,512	17,464
Obstetrics	3,774	13,752
Gynecology	1,135	7,536
TOTAL	18,357	197,834

* Includes Neurology, Dermatology, Infectious Diseases, Hematology.

SURGICAL OPERATIONS—FISCAL YEAR 1957-1958

<i>Month</i>	<i>Number</i>
July	547
August	479
September	489
October	465
November	473
December	435
January	465
February	434
March	448
April	443
May	446
June	457
TOTAL	5,673
 Total Autopsies	 377
Autopsy Percentage	48%

OUTPATIENT DEPARTMENT
TOTAL PATIENT VISITS FOR FISCAL YEAR 1957-1958

<i>Department</i>	<i>Number</i>
<i>Medicine</i>	
General	15,747
Allergy	3,373
Arthritis	1,068
Cardiology—Hypertension	1,750
Chest	993
Dermatology—Department "S"	9,436
Diabetic—Endocrine—Isotope	2,492
Hematology	659
Gastro-Intestinal	729
Neurology—Demyelinating	1,251
TOTAL	37,498
<i>Obstetrics</i>	14,150
<i>Gynecology</i>	
General	8,480
Oncology	999
TOTAL	9,479
<i>Pediatrics</i>	
General (Includes Hematology)	18,429
Pediatric—Cardiology—Chest	831
Pediatric Seizure	724
TOTAL	19,984
<i>Surgery</i>	
General	13,764
ENT	2,580
Genito-Urinary	3,906
Neuro-Surgery	730
Orthopedics	3,494
Thoracic Surgery	133
TOTAL	24,607
<i>Dental</i>	2,658
<i>Child Guidance</i>	1,143
<i>Medical Comprehensive</i>	1,317
Psychosomatic	80
TOTAL	1,397
<i>Physical Therapy</i>	5,252
<i>Home Visits</i>	107
<i>Psychiatry</i>	7,433
<i>Psychiatry Child Guidance</i>	2,436
<i>Well Baby Clinic</i>	5,334
GRAND TOTAL	131,478
<i>Laboratory Examinations</i>	54,324
<i>X-ray Examinations</i>	11,250

OUTPATIENT DEPARTMENT
CLINIC VISITS—FISCAL YEAR 1957-1958

<i>Month</i>	<i>New</i>	<i>Revisits</i>	<i>Referrals</i>
July	1,632	8,485	575
August	1,649	8,100	749
September	1,425	8,393	661
October	1,596	9,686	907
November	1,363	7,993	687
December	1,143	6,824	574
January	1,681	9,161	746
February	1,267	7,331	660
March	1,639	8,848	840
April	1,634	9,778	899
May	1,752	9,798	761
June	1,819	9,677	745
TOTAL	18,600	104,074	8,804

UNIVERSITY HOSPITAL EMERGENCY ROOM

Total patients treated 38,468

INTERNS AND RESIDENTS—FISCAL YEAR 1957-1958

<i>Department</i>	<i>Total</i>
Intern—Rotating	23
Intern—Medicine	5
Intern—Pediatrics	2
Intern—Dental	3
Anesthesia	11
Dental	1
Medicine	22
Obstetrics-Gynecology	14
Pediatrics	11
Psychiatry	18
Radiology	8
Surgery	41
TOTAL	159*

* The above total includes Fellows, and members of the House Staff paid from Departmental Restricted Funds, or other Funds.

VOLUNTEER SERVICES—FISCAL YEAR 1957-1958

<i>Volunteers</i>	<i>Hours Contributed</i>	<i>Service</i>
Red Cross Production Workers.....	3,082	240,440 Surgical Dressings, 860 O.R. and Delivery Caps
Red Cross—Nurse's Aides	3,014	Patient care on Wards
Women's Auxiliary Board Volunteers..	9,112	Patient areas, Gift Shop, Information Desk, Outpatient Dept., Patient's Library, Sewing Group, Canteen, etc.
TOTAL	15,208	

COST PER PATIENT DAY—FISCAL YEAR 1957-1958

PERIOD JULY 1, 1957, THROUGH JUNE 30, 1958

The following information derived from "Hospital Statements of Reimbursable Costs" submitted to the Maryland Hospital Service (Blue Cross) :

*Adjusted Inpatient Days	212,472
Total Operating Expenses	\$6,915,341.81
Operating Expenses, Including Depreciation	\$7,330,262.32
Blue Cross Per Diem Cost	\$34.50

* Weighed by Outpatient visits—5 visits equal 1 patient day.

GIFTS AND CONTRIBUTIONS RECEIVED FROM JULY 1, 1957, TO JUNE 30, 1958

<i>Name of Donor or Sponsor</i>	<i>Description of Gift</i>	<i>Value</i>	<i>Purpose</i>
A. J. Fink Foundation.....	Contribution	\$ 100.00	For use in patient areas
C. E. Stevens, Inc.....	Contribution	100.00	Oxygen tent
Lapides Foundation, Inc.....	Contribution	100.00	Glasses, appliances for patients
Maryland Tuberculosis Assoc...	Contribution to Md. Tuberculosis Fund	110.00	Chest X-ray Screening Service
Mr. & Mrs. H. R. Dunnock....	Contribution	100.00	For use in Pediatrics
Soroptimist Int'l. of Balto.	Contribution	90.00	Blood pressure apparatus for Pediatric Clinic
The Black & Decker Mfg. Co...	Contribution	55.00	Outpatient Christmas Fund
United Order of True Sisters...	Contribution	200.00	Drugs for cancer patients
Wednesday Bridge Club.....	Contribution	150.00	Cancer research
Yorkwood Women's Club.....	Contribution	575.00	Premature infant incubator
Yorkwood Women's Club.....	Easter Favors	..	Pediatric patients
Stoneleigh Garden Club.....	Easter Flowers	..	Patient areas
Lutherville Garden Club.....	Easter Flowers	..	Patient areas
National Brewing Company....	Contribution	5,000.00	Hoffberger EEG fund
Maryland Chapter of Arthritis and Rheumatism.....	Gift Subscription	..	Shipley library
ILA Welfare Fund.....	100 Vials of Flu Vaccine	..	Employees health service
Brownie Troop No. 662.....	Christmas Gifts	..	Pediatric patients
Brownie Troop No. 234.....	Thanksgiving Favors	..	Pediatric patients
Yellow Cab Company.....	Christmas Carol Booklets	..	Patient areas
Women's Auxiliary Board of University Hospital.....	Furniture and Draperies	1,387	Patient areas
Women's Auxiliary Board of University Hospital.....	Contribution	600.00	Indigent Clinic patients
Women's Auxiliary Board of University Hospital.....	Contribution	1,625.00	Indigent patients
Women's Auxiliary Board of University Hospital.....	Contribution	200.00	Christmas trees for patient areas



MEDICAL SCHOOL SECTION

DR. FIGGE RE-ELECTED CANCER PRESIDENT

At the annual meeting of the Board of Directors of the Maryland Division of the American Cancer Society, Dr. Frank H. J. Figge, Professor of Anatomy was re-elected for a second term as President of the local Society.

DR. KEMLER HONORED

Dr. Joseph I. Kemler, Associate in Ophthalmology in the School of Medicine, was recently honored by the American Academy of Ophthalmology and Otolaryngology. He received the Award of Merit in grateful appreciation for services to the Academy in its educational program.



Dr. Joseph I. Kemler

FACULTY MEMBER AWARDED FELLOWSHIP

Dr. William S. Spicer, Assistant in Medicine, and Chief of the Section on Pulmonary Diseases, has been named National Tuberculosis Association Fellow for the year 1958. Dr. Spicer will conduct clinical research and diagnosis in tuberculosis, with the main research endeavor directed toward the reaction of human beings to the tubercle bacillus. Dr. Spicer will work in cooperation with the Loch Raven Veterans Administration Hospital. A native of Missouri, Dr. Spicer received his degree of Doctor of Medicine from the University of Kansas.

DRS. KIEFER AND BURKART RECEIVE PROMOTION

Drs. Lester Kiefer and Thomas Burkart of the Department of Pathology were recently named Associates in Pathology. Both doctors completed their training July 1, 1957 and joined the regular staff of the Department of Pathology.

DR. SAVAGE APPOINTED TO JOHNS HOPKINS FACULTY

Dr. John E. Savage, Assistant Professor of Obstetrics in the School of Medicine, was recently appointed Lecturer in Obstetrics at the Johns Hopkins University, School of Medicine and Obstetrician, the Johns Hopkins Hospital.

DEPARTMENT OF DERMATOLOGY REPRESENTED AT 1957 SOUTHERN MEDICAL ASSOCIATION MEETING

The Department of Dermatology presented an exhibit entitled *The Epidemiology of Microsporum Audouini Infection of the Scalp*. This exhibit was constructed jointly

by Drs. Harry M. Robinson, Jr. and Eugene S. Bereston. A paper entitled *Emotional Factors in Skin Diseases* was presented as a joint study by Drs. Raymond C. V. Robinson and Harry M. Robinson, Jr.

Members of the Division of Dermatology attended the meeting of the American Academy of Dermatology held in Chicago on December 8-13, 1957. Dr. Francis A. Ellis participated in a panel on *Histopathology of the Skin*, Dr. Eugene S. Bereston participated in a panel on *Dermatotherapy* and Dr. Harry M. Robinson, Jr. delivered a paper entitled *Mucous Membrane Lesions*.

OPENING EXERCISES BEGIN 151ST ACADEMIC YEAR

With an invocation pronounced by the Reverend Doctor Bruce H. McDonald, Minister, Westminster Presbyterian Church, the opening exercises marking the beginning of the 151st academic year, were held on September 11, 1957.

In his opening words of welcome to the new class of medical students Dean Stone emphasized the work of a distinguished Maryland alumnus, Dr. John Carroll. Dean Stone reminded the students of the illustrious past of the University of Maryland in welcoming them as members of the student body.

President Wilson H. Elkins, in greeting the students, emphasized the necessity of continuing one's broad education in the midst of the narrowing tendencies of medical specialization.

Music was furnished by the Student Nurses' Glee Club under the direction of Mr. Charles A. Haslup.

The Convocation was followed by a tea sponsored by the faculty wives of the School of Medicine.

FACULTY MEMBERS PRESENT PAPER AT FIFTH ANNUAL ANTIBIOTICS SYMPOSIUM

Drs. Fred R. McCrumb, Jr., Merrill J. Snyder and William J. Hicken were the authors of a paper concerning the use of Chloromycetin in treating a number of patients with acute infectious processes. This paper was presented at the Fifth Annual Antibiotics Symposium held on October 4, 1957 at the Willard Hotel in Washington, D. C. It was reported that Chloromycetin acid succinate could be administered both intravenously and intramuscularly in much smaller volume and with greater ease than with other forms of injectable Chloromycetin.

MEDICAL LIBRARY NOTES

In the six months period May through October 1957, the following donors have presented books and journals to the library:

Mrs. John Askin
Dr. Charles Bagley, 3d
Mr. Charles Bayn
Dr. Clifford Blitch
Dr. Louis V. Blum
Dr. J. Edmund Bradley
Dr. Robert W. Buxton
Dr. Francis G. Dickey

Mrs. John G. Jeffers
Dr. John C. Krantz, Jr.
Mr. George A. Lentz, Jr.
Dr. John M. Niklas
Dr. Robert T. Parker
Peale Museum
Dr. M. C. Pincoffs
Dr. Aubrey D. Richardson

Dr. Frank H. J. Figge	Mrs. I. M. Robinson
Dr. Kurt Glaser	Mr. Arthur Silverstein
Dr. Samuel S. Glick	Miss Lillian Snyder
Dr. Frank W. Hachtel	Dr. Irving J. Spear
Mr. Gerald A. Hofkin	Dr. William S. Stone
Dr. Henry Hull	Dr. A. G. Swiss
Hynson, Westcott and Dunning	Dr. Charles L. Wisseman, Jr.
Dr. Samuel M. Jacobson	Dr. H. Boyd Wylie
Dr. Jacob Zimmerman	

Dr. Arthur M. Kraut of Jersey City, New Jersey has sent another generous check for the Briscoe Fund, besides his continuing gifts of books and journals.

Miss Hilda E. Moore, associate librarian of the University of Maryland medical sciences library, has been appointed Assistant Professor of Library Science.

S.O.S.

The medical library has only incomplete files of many of the early catalogues and other publications of the School of Medicine and of the schools which it directly or indirectly absorbed (Baltimore Medical College, College of Physicians and Surgeons, Washington University School of Medicine).

There is no source of supply for these treasures except perhaps the attics of alumni and the old trunks of their fathers and grandfathers who were also alumni. We present a strong appeal, therefore, for any nineteenth century printed announcement, catalogue, commencement program, or publication of any type relating to the early history of the School of Medicine and the University Hospital.

From time to time we may publish lists of specific titles and issues, but do not want this to deter our friends from sending *everything* available. At present we are especially interested in the following:

College of Physicians and Surgeons of Baltimore:

Annual announcements and catalogues, 1872-1911

University of Maryland School of Medicine:

Announcements and catalogues before 1888

Washington University of Baltimore, Medical Department (or School of Medicine):

Anything published, 1827-1878.

FACULTY PARTICIPATES IN POSTGRADUATE HEART SYMPOSIUM

Members of the medical faculty who participated in the postgraduate course on heart disease held under the auspices of the Heart Association of Maryland on Friday, November 15, 1957 included Drs. Samuel P. Bessman, R. Adams Cowley, Lauriston L. Keown, Nathan E. Needle and Leonard Scherlis.

AMERICAN BOARD COMPLIMENTS DERMATOLOGY DEPARTMENT

Recent examinations conducted by the American Board of Dermatology were held at the School of Medicine under the auspices of the Department of Dermatology. In

a letter to Dean Stone, Dr. Beatrice M. Kesten, Secretary of the Board commented (and we print the entire letter) as follows:

"Dear Dean Stone:

"Through the courtesy of Dr. Robinson the American Board of Dermatology was privileged to hold its examinations in the University Hospital on October 11th, 12th and 13th. We wish to express our deep appreciation for this privilege.

"Dr. Robinson is to be complimented on the excellence of the medical records, which accompanied each of the fifty participating patients, and for his outstanding cooperation with the Board in all the preparation and execution of giving an oral examination.

"The skin clinic is excellently arranged and equipped. Under Dr. Robinson's enthusiastic direction in dermatology, your University has become one of the outstanding places in the United States.

"The Board, and I am sure, the candidates from all parts of the country, wish to thank you for your splendid cooperation in furthering our specialty.

"One of the most pleasant experiences the members of the Board had was the visit to the Administrative Building. It is good to know that there are a few places in the United States which by linking the present and the past maintain tradition and beauty.

Sincerely,

BEATRICE MAHER KESTEN, M.D.
Secretary"

Ed. note—The Bulletin believes such commentaries are indeed worthy of public record. It represents spontaneous expression, most certainly the result of continued application, departmental teamwork and careful planning.

DR. J. E. FINESINGER APPOINTED EDITOR

Recent announcement by the Williams and Wilkins Company concerned the reorganization of the *Journal of Nervous and Mental Diseases*. Dr. Nolan D. C. Lewis, a University of Maryland alumnus, class of 1914, and for many years Editor of the *Journal of Nervous and Mental Diseases* has announced his resignation.

Highlighting the reorganization of the journal is the appointment of Dr. Jacob E. Finesinger, Professor of Psychiatry at the University of Maryland, as Editor. The Williams and Wilkins Company announces that instead of the customary two volumes per year the journal will publish but one volume in 1957 with subscriptions extended into 1958. In January, 1958 the new journal will be unveiled.

Drs. Robert Grennell and Harvey Robinson will assist Dr. Finesinger in the organization and operation of the journal. It is presumed that the editorial offices will be located at the School of Medicine, University of Maryland, where manuscripts may be addressed.

DR. BRANTIGAN CO-AUTHORS NEW CHEST VOLUME

Dr. Otto C. Brantigan, Professor of Clinical Surgery, in the School of Medicine and well known thoracic surgeon, is one of the contributors to *MacLerio's Bronchopulmonary Diseases* recently published by Paul B. Hoeber, Incorporated of New York City.

With Dr. C. Y. Hadidian, Dr. Brantigan has contributed a portion of Chapter XXIII entitled *Complications Following Pulmonary Surgery*.

ITEM

Dr. Morris M. Cohen, Instructor in Dermatology at the School of Medicine, has recently been named Director of the Bureau of Venereal Diseases of the Baltimore City Health Department.

In noting this important appointment, Dr. William S. Stone, Dean, in a letter to Dr. Cohen stated "I wish to extend to you congratulations for the work you have done that has won recognition leading to your appointment. We at the University of Maryland are greatly pleased and proud of your accomplishments."

MERCY HOSPITAL NEWS

BUILDING FUND NEWS

Mercy Hospital is once again gathering its forces for another all-out drive for the Building Fund. As in the last drive, Dr. Walter D. Wise is general chairman along with M. Jenkins Cromwell and Albert D. Hutzler, Jr. The goal is \$8,000,000 and a modern 21-story skyscraper tower-type hospital on the same location first established by the College of Physicians and Surgeons in 1869. The dates for the drive are from February 15th through March 31st, 1958.

POSTGRADUATE TRAINING NEWS

Dr. Hilbert M. Levine, Associate Resident in Surgery, attended a course in "Treatment of Fractures and Other Traumatic Conditions" at the Massachusetts General Hospital in Boston, Massachusetts, from October 7 to October 12, 1957. From October 14 to October 18, Dr. Levine attended the Clinical Congress of the American College of Surgeons held in Atlantic City.

Dr. Antonio K. Olmedo, Senior Assistant Resident in Obstetrics and Gynecology, attended a six-week course at Johns Hopkins, which began on September 19, 1957, in Gynecologic Pathology.

NEW MEMBERS OF VISITING STAFF

The following physicians have recently been appointed to the Visiting Staff of Mercy Hospital: **Dr. Ira B. Anderson**, **Dr. George H. Beck**, **Dr. John E. Carroll, Jr.**, **Dr. Howard Goodman**, **Dr. John F. Hogan, Jr.**, and **Dr. Rennert M. Smelser**.

MEET THE EMERITI

Dr. Andrew Colin Gillis, one of our honored Emeritus Professors, was born in Antigonish, Nova Scotia, late in the last century. His early education was in the public schools of Nova Scotia. He attended Saint Francis Xavier University, from which he received the degree of Bachelor of Arts.

Dr. Gillis began his medical education at Dalhousie University, Halifax, Nova Scotia. After the second year he decided to come to Baltimore to attend the College of Physicians and Surgeons because this school had larger clinical facilities. He spent most of the senior year as a student interne at the old Hebrew Hospital, now known



DR. A. C. GILLIS

as the Sinai Hospital. He graduated from the College of Physicians and Surgeons in 1904, spent most of the following year in Boston, and then returned to Baltimore, joining the staff of Mercy Hospital in the Department of Medicine. Later Dr. Gillis became Resident Physician and Medical Superintendent of this hospital for three years. He is still a member of the staff as Consultant in Neurology and Psychiatry.

Dr. Gillis began teaching in his alma mater in 1905, at first in the Department of Medicine, and later in that of Neurology and Psychiatry. He attended Loyola College, part-time, from 1909 to 1911, and received the degree of Master of Arts in Psychology and Ethics from that institution in 1911, and a Doctor of Laws degree in 1924. From 1911 to 1912, he worked part-time with the late Dr. Howell at the Johns Hopkins Medical School, taking a course in physiology of the nervous system, and carrying out some research work in that subject. The year 1913 was spent in Europe in the study of psychiatry at the University of Berlin, and of neurology in the private clinic of Professor Oppenheim in Berlin. A few months were spent in London in the Hospital for Nervous Diseases.

Returning to Baltimore, Dr. Gillis was appointed Professor of Neurology and Clinical Psychiatry in the College of Physicians and Surgeons, and when this school combined with the School of Medicine, University of Maryland, he continued in this capacity. When the department was later divided, he became Professor of Neurology and served until 1949. At various times he was on the staffs of some

twelve hospitals in Maryland as a visiting specialist, or consultant in neurology or psychiatry. Dr. Gillis served as a consultant for many years to the U. S. Veterans Administration, the U. S. Public Health Service and the Board of Consultants to the Baltimore City Health Department. For eight years, he was a member of the Maryland State Board of Mental Hygiene, which at that time had control of the State mental hospitals.

In World War I, Dr. Gillis served successively as captain, major and Lieut. Colonel, in the Medical Corps, U. S. Army, as Chief Psychiatrist and head of the Neuropsychiatric Board at Camp Meade, and later as Consultant in Neuropsychiatry in France. On his return to this country, he was assigned as Chief of the Neurosurgical Division of U. S. General Hospital No. 2 at Fort McHenry, Maryland, having a service of some 300 patients with injuries of the nervous system. Dr. Gillis joined the Medical Reserve Corps of the U. S. Army in 1924, and was given the rank of Colonel. His present assignment is Colonel (Honorary) U.S.A.R.

Dr. Gillis is a Diplomate of the American Board of Psychiatry and Neurology, in both psychiatry and neurology; a Fellow of the American Psychiatric Association, the American Academy of Neurology, the American College of Physicians, the American Association for the Advancement of Science, the American Geriatrics Society; a Member of the Association of Military Surgeons of the United States, and the American Association of the History of Medicine, as well as City, State and National medical organizations. In 1953 he received an honorary degree of Doctor of Science from this University.

Dr. Gillis has made his home at 1033 North Calvert Street since 1922. His main hobby and recreation at present is reading. He has amassed a considerable library in his lifetime, with wide and varied interests in subjects related to his specialty. Social anthropology and the history of civilization are his special interests. Dr. Gillis still carries on an active consultant and specialist practice at 1033 North Calvert Street. We wish him well in his continuing vocation as well as his intellectual hobbies.

REMARKS AT A TESTIMONIAL DINNER TO DR. MAURICE C. PINCOFFS, BALTIMORE, MARYLAND, MAY 31, 1957

BY ALAN M. CHESNEY, M.D.

Mr. Toastmaster, Dr. Pincoffs, and Friends of Dr. Pincoffs:

I am deeply grateful for the opportunity to participate in this tribute to Dr. Pincoffs, not only because he is an old and valued friend and classmate of mine, but also because it is always a great pleasure for me to join with my friends and colleagues of the School of Medicine of the University of Maryland in any worth-while undertaking, whether it be a joyous occasion such as this, or a dog fight!

I first met Dr. Pincoffs when he came to the Hopkins Medical School in the autumn of 1910, having just completed his first two years as a medical student at Rush Medical College in Chicago. He was admitted to our class, which was just beginning its third year in the School, on the basis of his work at the University of Chicago and at Rush, which enjoyed a close affiliation with one another at that time.

I have made use of my prerogatives as an Ex-Dean to take a look at our honored guest's folder in the Dean's Office of the Hopkins Medical School in order to see if there was anything in the record there that might throw light upon his subsequent career in medicine. In that folder I found several things of interest which I shall now share with you.

To begin with, I learned that an uncle of Dr. Pincoffs on his mother's side, Ferdinand Henrotin by name, was a Chicago physician, but there is nothing in the folder to indicate whether or not this uncle had any influence in directing his nephew toward a medical career. Perhaps our guest will enlighten us on that point this evening.

I learned also that as a comparatively young medical student, he was already regarded by his instructors at Rush as exceptionally able. Even the Dean spoke well of him! But most interesting of all to me was to learn that this young man had already determined upon a career in medical research, or so his sponsors said, and particularly in the application of chemistry to medicine. In substantiation of that statement permit me to read to you the following letter written in 1910 by Dr. R. R. Bensley, Professor of Anatomy in the University of Chicago, to Dr. Franklin P. Mall, Professor of Anatomy at the Hopkins:

"Department of Anatomy, University of Chicago,
Chicago, June 16th., 1910

Professor Franklin P. Mall,
Johns Hopkins University, Baltimore, Md.

My dear Professor Mall:—

One of our men Mr. Maurice Pincoffs will write in a day or two to Dr. Howell about getting advanced standing in the medical course in Hopkins. He is a graduate of the University of Chicago, and although he took his degree after beginning the medical course, has sufficient credits to give him his S.B. as well as two years of medical work. The last year he has been a laboratory assistant in Anatomy. I am much interested in Pincoffs' future because I regard him as the best man that we have had in the medical department of the University of Chicago since we started work here, and because he has been shaping his work definitely for a future in medical research. He is now considering whether he will complete his medical course in this country or in Germany and told me this morning that he would go to Hopkins if he could get advanced standing for his work. I hope that this will be possible and I am quite sure that if in doing this the Faculty stretches some of its regulations a little it will be more than compensated by securing an exceptional man.

With kind regards,
Yours sincerely
R. R. Bensley"

It was not necessary for the Hopkins authorities of that day to stretch any of their regulations to admit Mr. Pincoffs to advanced standing in the School, although I do not doubt that they would have done so willingly had it been necessary. The candidate fulfilled all the requirements for admission to the third year class and

was promptly admitted without any conditions. Thus it came about that he did not go to Germany to complete his medical education but chose instead to cast in his lot with Hopkins, and I speak authoritatively when I say that Hopkins will always rejoice that he did so.

In the Medical School Dr. Pincoffs and I were not thrown closely together. Our names were far apart in the alphabet and, since for most of the work in both the third and the fourth years the class was divided into sections, the composition of which was determined alphabetically, we never had the opportunity to work in the same section. Moreover, we belonged to different student groups. He was a member of the Nu Sigma Nu Medical Fraternity while I belonged to a rival organization called the Pithotomy Club. Those of you who have retained any vestige of Greek which you may have learned earlier in your educational career will perhaps be able to figure out that the word "Pithotomy" is derived from two Greek words which, joined together, may be freely translated as an operation involving the opening of a beer keg. Parenthetically I might add that the Hopkins Nu Sigs were quite as familiar with that particular operation as were their neighbors, the Pithotomists!

I recall very vividly the first time I saw the new transfer student from Rush perform in class. It was in one of Dr. Barker's clinics for the third year students, in which a patient from the day's run of medical cases in the Dispensary was selected for demonstration. The patient's body was swollen all over and it was obvious that he had what we doctors call edema, but the question was—what might be the cause of it? Dr. Barker called upon Mr. Pincoffs right out of the blue, asking him about the various things which give rise to edema, and the way this tall young newcomer from the west proceeded to enlighten everybody present on the prevailing views of the cause of edema, particularly those of Martin Fischer of Cincinnati which enjoyed considerable vogue at the time, made us all sit up and take notice. From that day on Pincoffs was a marked man as far as I was concerned.

Now it might be supposed that any student with mental equipment of that level ought to be able to breeze along through medical school without any trouble at all, but candor compels me to tell you that such was not exactly the case in this instance. Sad to relate, our good friend got into a bit of trouble in the middle of his fourth year. It all happened in his elective trimester.

I should explain to you that our fourth year was divided into three periods, or trimesters, and in one of these periods the student was permitted to choose the courses in which he was interested. Whether or not our good friend concluded that the term "elective trimester" really meant what it said, and that during that period a student could darn well do anything that he chose to do, I cannot say, but it is a matter of record that he went A.W.O.L. from the School for a whole month during his elective trimester. Not only did he absent himself from the institution without permission but, worse still, he actually went to Bellevue Hospital in New York City for training in surgery! Lest you doubt what I say, let me read to you the minute from the Medical Faculty meeting at which this unheard-of academic transgression was reported.

The date is January 26, 1912, and I quote:

"The Dean reported the unauthorized absence of Mr. Pincoffs of the Fourth Year

Class, from part of his elective trimester and was instructed to see that he was properly disciplined on his return." And later:

"The Dean reported that Mr. Pincoffs had returned to the School and had been seen by Dr. Halsted and himself and the matter settled by the former allowing him a credit of one unit for the surgical work done at Bellevue."

So all ended well, our young student was able to graduate well up toward the top in his class, and it is of interest, I think, that his final mark in Surgery, which was 9, exceeded by a slight margin his final mark in Medicine!

With his medical diploma safely in hand Dr. Pincoffs could now begin a year's internship at the Presbyterian Hospital in Chicago and after that year was over he returned to Baltimore to become a member of the resident staff in medicine at the Baltimore City Hospitals located at Bay View. A new building for acute cases had recently been completed there and the medical service placed under the direction of the late Dr. Thomas R. Boggs. With Dr. Boggs our guest formed an enduring friendship and together they published two papers during this period, one of which dealt with a case of yeast infection of the lungs, a rare type of malady in this part of the world, and the other with the method the authors had used in the study of yeast-like organisms (1).

Having finished the residency in Medicine at the City Hospitals in 1915, Dr. Pincoffs was now ready to enter practice and this he did by becoming an associate of the late Dr. Lewellys F. Barker who had his office at 1035 N. Calvert Street here in Baltimore. He did not, however, allow himself to become completely engrossed in practice for he managed to find time to work on fundamental physiologic problems with the late Dr. John J. Abel in the Hopkins Department of Pharmacology. Two papers dealing with this work and with his name as a co-author appeared from Dr. Abel's laboratory in 1917 (2) and there is no telling how many more would have been forthcoming if the United States had not entered World War I in April of that year. Needless to say our friend lost no time in getting into that war.

Some of you may remember that shortly after the United States entered the first World War both the British and the French governments sent official missions to this country to place before our own government their particular needs in the way of assistance. I do not now recall what it was that the French wanted but I do recall that the British Mission, which was headed by Lord Balfour, asked that the United States government assign six base hospital units and a thousand unattached medical officers to the British Expeditionary Force in France, to replace the losses in doctors that the British had already sustained in that war.

It so happened that Lieutenant Pincoffs, who had by now his commission in the Medical Reserve Corps of our Army, became one of that first thousand unattached medical officers, and I became a member of one of those six base hospital units. We both sailed from New York within a few days of one another, and met in the Curzon Hotel in Mayfair, London, where we were billeted while waiting for orders to proceed to France.

Now Maurice Pincoffs, as some of his friends well know, is a veteran camper, and is skillful in being able to live fairly comfortably in the open, but apparently he had not had time before he left the United States, to obtain all of the equipment which he thought that he might need in France, so he proceeded to pay a visit to the Army

and Navy Stores in London and, judging from what I saw in his room at the Curzon Hotel I should guess that the clerks at the Army and Navy Stores had a field day at his expense. He also got together a tidy little medical library while he was in London, but whether all his impedimenta came within the luggage allowance for British medical officers in the field I never learned.

In due time our guest received his orders to join the British Expeditionary Force in France as a battalion medical officer and saw service in the Ypres salient. He learned some of the quaint customs of the British Army's officers' mess, and also much about the handling of casualties in the field, and this knowledge, as we shall see in a moment, stood him in very good stead when he was transferred later on to the Second Division of the American Army.

Of his service with the Second Division I cannot speak from my own experience, but I want to quote from a book written by Dr. Richard Derby, who was Division Surgeon of the Second Division for part of the time that Dr. Pincoffs was assigned to it. Derby was a son-in-law of President Theodore Roosevelt and in a book called "Wade In, Sanitary!", he had this to say:

"Lieutenant Maurice Pincoffs, at the time Battalion Surgeon with the Ninth Infantry, had served with the British in the spring and summer of 1917. He had given serious thought to the question of the evacuation of the wounded from the forward area, and had had most active experience in this line while serving with the British about Ypres. His experience, combined with the courage and splendid qualities of leadership which he possessed, made him an invaluable person to develop this particular feature of the problem. Lieutenant Pincoffs came from Baltimore and was a graduate of the John (sic) Hopkins Medical School. He was the ideal of all that a medical officer should be. Absolutely fearless, full of resource, and a born leader, he was ever accomplishing what appeared impossible, and in so doing maintained at a high pitch the morale of those about him. The system of location of battalion aid stations and use of the litter bearer sections of the ambulance companies, which was used in the open fighting of the summer, was developed by Lieutenant Pincoffs, and to him is due much of the credit for the rapid evacuation of the battlefield which characterized the later engagements of the Division."

When the war was over Dr. Pincoffs, who was by now a Captain, returned to Baltimore, married a lovely Baltimore girl, and settled down to the practice of medicine. In 1920 he was appointed Instructor in Clinical Medicine in the Johns Hopkins University and also was appointed Assistant Physician in Charge of the General Medical Division of the Out Patient Department of the Johns Hopkins Hospital. In 1922 he was appointed Professor of Medicine in the University of Maryland and head of its Department of Medicine, and at this point my part of the Pincoffs saga comes to an end.

Before signing off altogether, however, I should like, if I may, to say just a few words about the significance to the University of Maryland, as I see it, of that appointment. I do not know who was responsible for it but I suspect that my good friend the late Dr. Rowland had a large share in it. Whoever was responsible, the most significant thing about it, to my way of thinking, was the fact that the authorities of the University were willing to step outside their own institution and call a man from another medical school to fill such an important clinical chair.

It is not so difficult to bring outsiders into a medical school to head up the pre-clinical departments but it is much more difficult to do so in the clinical departments because vested local interests have a way sometimes of growing to large proportions in our American medical schools, and may lead at times to in-breeding in those institutions. Dr. Welch once expressed this thought in a slightly different way when he said in another connection, "There has been no influence more deterrent to the development of high standards of medical education in this country than the restriction of the horizon of a medical school to its immediate professional environment".

The appointment of Dr. Pincoffs in 1922 as Professor of Medicine in the University of Maryland demonstrated that the authorities of the School of Medicine of that day were capable of deliberately widening the horizon of the institution, to use Dr. Welch's words. It is indeed fortunate that the appointment has been so successful for I am certain that it has demonstrated to all and sundry that looking outside for one's clinical faculty can, as it has done in this instance, pay handsome dividends.

Mr. Toastmaster, when the Johns Hopkins University School of Medicine was established in 1893, it drew heavily for its clinical faculty on graduates of the University of Maryland who were practising here in Baltimore. This was particularly true in the case of its first professor of Obstetrics, the late Dr. J. Whitridge Williams, who graduated from the University of Maryland in 1888. Dr. Williams built up an outstanding department in his field and served the Hopkins School of Medicine with great distinction for a total of thirty-eight years, part of that time as its Dean. Dr. Pincoffs graduated from the Johns Hopkins University in 1912 and has served the University of Maryland School of Medicine, also with great distinction, for thirty-five years. I beg respectfully to submit, sir, that in the person of Dr. Pincoffs Hopkins has repaid the debt it has owed to Maryland for many years, and that Dr. Stone may now safely mark the account "paid in full".

REFERENCES

- (1) Johns Hopkins Hospital Reports, 1916, XVIII, 62 and Johns Hopkins Hospital Bulletin, 1915, XXVI, 354.
- (2) Proceedings of the National Academy of Sciences, 1917, III, 507, and American Journal of Physiology, 1917, XLIV, 320.

ALUMNI ASSOCIATION SECTION

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* July 1, 1957 to June 30, 1958

DEAN'S LETTER

Dear Members of the Alumni and Friends of the School of Medicine:

The beginning of a new year is usually the time to evaluate the work that has been done; to express one's appreciation for the accomplishments that have proved to be beneficial and to single out areas where efforts for improvement have been inadequate and where increased emphasis must be placed during the year ahead.

During 1957, the School of Medicine has been supported by President Elkins and his staff and the Board of Regents of the University with a sincere desire to be helpful in developing an outstanding program of medical education and research. With the many problems facing the University, because of ever increasing enrollment, ways and means have still been found to allow continuing development of the School of Medicine and its clinical teaching areas in the University Hospital. A great understanding of the needs of medical education can be justly attributed to the Director of University Hospital, Dr. Clifford G. Blitch, and his staff for they have constantly supported the needs of our educational program with every resource available to them.

The faculty is well organized, resourceful and blessed with many individuals with outstanding talent in their chosen fields of learning. They are devoted to the purpose of presenting an outstanding medical educational opportunity to all of our students, as undergraduates, house officers and graduate students.

The students have developed a sincere appreciation of not only the need to amass

factual information and skills needed by M.D.'s, but also the need for the physician to understand the patient and factors influencing his health.

A friendly relationship has developed between faculty and students, not only in their contacts as student and teacher, but also socially and as individuals seeking the answer to many of the perplexing health problems of life.

For all these things we are thankful, for they have resulted in a greatly improved educational program and an expansion of research by over 280 per cent during the past three years. With this understanding, fellowship and devotion to medical education, the possibilities for the future are unlimited.

In singling out areas for needed improvement, it is obvious that we must continue to improve in all departments of the Medical School. Good work only survives as such if the effort is at least maintained. In our efforts to raise a substantial structure in medical education, we have had to insist on devoting our primary efforts to the basic structure in the sciences and clinical areas. We must now begin to develop the necessary supporting specialty areas of medical education. Adequate work in all areas cannot be accomplished at once. Because of the lack of work in Maryland in the field of rehabilitation, we must now gain assistance for the medical education of our students in the skills of the psychiatrist, the physical therapist, the psychologist, and the occupational therapist in the rehabilitation of individuals suffering from acute and chronic diseases and injury. During 1958, we will attempt to further develop rehabilitative medicine in the educational program of the medical school.

With all good wishes and appreciation of your continued support of medical education.

Sincerely,
WILLIAM S. STONE, M.D.
Dean

DR. TRIPLETT TO BE HONORED AT DINNER

Friends, associates and colleagues of Dr. William H. Triplett will honor him at dinner on February 11, 1958, at the L'Hirondelle Club in Baltimore.

Dr. Triplett, a 1911 graduate of the School of Medicine, and for many years active in general practice in Baltimore, will be honored for his continued devotion to the welfare of the School of Medicine. He has served as Director of the Medical Alumni Association, since 1952.

Shortly after his graduation from medical school, Dr. Triplett became interested in military medicine and for many years was active in the Maryland National Guard. He served as a medical officer in World War I and after the war he remained active in the 104th Medical Regiment serving as one of its senior officers.

When the National Guard was federalized just prior to the advent of World War II, Dr. Triplett assumed command of the 104th Medical Regiment with the rank of Colonel, serving both in the United States and overseas. In 1944 he retired because of illness.

Since his retirement Dr. Triplett has continued to be active in fraternal and civic affairs as well as devoting a large part of his time to the welfare of the School of



DR. WILLIAM H. TRIPLETT

Medicine and in particular the Medical Alumni Association. Through his efforts the Bulletin of the School of Medicine has emerged as a cooperative project between the Alumni Association and the Faculty. He has been active on a large number of Faculty and Faculty-Alumni Committees. Dr. Triplett has been instrumental in organizing alumni gatherings at various medical meetings held throughout the United States. He has contributed much toward the improvement of Faculty-Alumni relationships and has sought continually to foster a better understanding between alumni and students.

The Committee arranging the dinner includes Dr. Albert E. Goldstein, Chairman, Dr. John C. Krantz, Jr., Dr. William S. Stone, Dr. John A. Wagner and Dr. Austin H. Wood.

DR. VAUGHN HEADS MOST SUCCESSFUL ALUMNI REUNION
RECORD ALUMNI GROUP ATTENDS RECEPTION ON OCCASION OF S.M.A.
MEETING

More than 115 alumni and friends of the University attended a reunion on Tuesday evening, November 12, 1957 at the Roney-Plaza Hotel in Miami Beach. The cocktail reception, which was sponsored by the Medical Alumni Association and which was held incident to the annual meeting of the Southern Medical Association, was followed by a buffet supper.

Dr. James A. Vaughn, Jr., class of 1946 and Dr. Phyllis Peterson Vaughn, class of 1948, who both practice in Coral Gables, served as co-chairmen. The occasion was the most successful ever held by the Medical Alumni Association in connection with a large Medical Convention.

In congratulating Drs. Vaughn for their effective organization Dr. Harry M. Robinson, Jr., President-elect of the Medical Alumni Association, also commented on the increasing activity of the Association and its plans for future academic and social functions. Dr. John A. Wagner, medical editor of the *Bulletin*, School of Medicine, also spoke briefly on the importance of every alumnus sending pertinent professional news either of himself or of his friends and associates to the *Bulletin*.

Those in attendance were informed of the next large reunion which is planned for the American Medical Association Meeting to be held in San Francisco, June 23-27, 1958.

The following alumni and friends attended the reception and dinner: Dr. P.



115 alumni and friends are gathered at the Roney-Plaza Hotel, Miami Beach, Florida, Tuesday, November 12, 1957. The occasion is the Annual Meeting of the Southern Medical Association. At rostrum (standing l to r—Dr. James A. Vaughn, Jr., who organized the reunion, and Dr. Harry M. Robinson, Jr., President-elect of the Medical Alumni Association.



Scene at the reunion

(Top) Scene at cocktail party, l to r—Drs. Levine, Douglass and Longo

(Middle) Three attractive alumnae and Dr. Wagner. The ladies, l to r; Dr. Phyllis Petersen Vaughn, Dr. Georgia Reynolds and Dr. Katherine McGrady.

(Bottom) Dr. Harry M. Robinson, Jr., President-elect of the Medical Alumni Association, congratulates Dr. James A. Vaughn, Jr. on the excellent organization and successful alumni reunion.

Artigiani, Dr. N. F. X. Banvard, Dr. and Mrs. Eugene Bereston, Dr. and Mrs. M. Paul Byerly, Dr. Robert E. Bauer, Dr. and Mrs. Harry Eshinan, Dr. and Mrs. F. A. Holden, Dr. Ivan Junk, Dr. and Mrs. Walter Kohn, Dr. and Mrs. Herbert Lapp, Dr. and Mrs. Hugh McNally, Dr. and Mrs. Mould, Dr. and Mrs. E. Middleton, Dr. and Mrs. Henry Perry, Dr. and Mrs. Ross Pierpont, Dr. and Mrs. Harry M. Robinson, Jr., Dr. and Mrs. Raymond C. V. Robinson, Dr. Harry M. Robinson, Sr., Dr. Sherman, Dr. J. W. Smyth, Dr. E. H. Stewart, Jr., Dr. and Mrs. Irving Taylor, Dr. C. V. Williamson, Dr. and Mrs. Roger Waterman, Dr. John A. Wagner, Mr. John A. Wagner, Dr. and Mrs. F. M. Zervy, all of Baltimore; Dr. C. A. Andres Tampa, Fla.; Dr. B. R. Birely, Fort Lauderdale, Fla.; Dr. and Mrs. John M. Bloxom, III, Salisbury, Md.; Dr. and Mrs. H. L. Bell, Roanoke, Va.; Dr. and Mrs. Henry Briele, Salisbury, Md.; Dr. B. A. Cusani, Miami, Fla.; Dr. and Mrs. C. A. Davenport, Hartford, N. D.; Dr. Robert Douglass, Homestead, Fla.; Dr. Lawrence Egbert, Darby, Pa.; Dr. and Mrs. Lee Elgin, Miami Beach, Fla.; Dr. and Mrs. Philip Galitz, Perinhe, Fla.; Dr. W. R. Graham, Charlotte, N. C.; Dr. Wade H. Garner, Sanford, Fla.; Dr. and Mrs. James P. Gallaher, Salisbury, Md.; Dr. and Mrs. Walter Gerwig, Washington, D. C.; Dr. and Mrs. Morton Hammond, Miami, Fla.; Dr. and Mrs. Daniel O. Hammond, Miami, Fla.; Dr. Albert Jackvony, Providence, R. I.; Dr. E. Paul Knotts, Denton, Md.; Drs. Charles and Kathleen McGrady, Fort Lauderdale, Fla.; Dr. and Mrs. Karl Myers, Phillippi, W. Va.; Dr. and Mrs. Richard Mirow, Miami Beach, Fla.; Dr. Robert Levine, Tampa, Fla.; Dr. and Mrs. G. W. LeVan, Boonsboro, Md.; Dr. William Lueders, Staunton, Va.; Dr. and Mrs. Z. D. Owens, Elizabeth City, N. C.; Dr. and Mrs. Pierce Ellis, Laurel, Del.; Dr. Georgia Reynolds, Fort Lauderdale, Fla.; Dr. and Mrs. Robert Rosen, Miami Beach, Fla.; Dr. and Mrs. Reuben Rochkind, Miami, Fla.; Dr. and Mrs. Stanley Schwartz, Miami Beach, Fla.; Dr. and Mrs. George Schmitt, Coral Gables, Fla.; Dr. and Mrs. Scott, Miami, Fla.; Dr. R. Schindler, Washington, D. C.; Dr. and Mrs. Mason Trupp, Tampa, Fla.; Dr. and Mrs. D. Stone, Miami Beach, Fla.; Dr. and Mrs. John Rozum, Dr. and Mrs. W. S. Womack, Salisbury, Md.; Drs. James A. and Phyllis P. Vaughn, Coral Gables, Fla.; Dr. and Mrs. W. H. Yeager, Washington, D. C.

NOTICE

MEDICAL ALUMNI ASSOCIATION—A.M.A. RECEPTION

TO BE HELD ON OCCASION OF SAN FRANCISCO MEETING, JUNE 23-1958

A reunion of alumni and friends of the School of Medicine, University of Maryland will be held on the occasion of the Annual Meeting of the American Medical Association in San Francisco in June, 1958.

Arrangements are now in progress and will be under the Chairmanship of Dr. Lawrence S. Cannon, 139 Hillcrest Road, Berkeley 5 California.

Additional information may be obtained from the Alumni Office or from Dr. Cannon.

KEEP THE NEWS COMING

Elsewhere in the Bulletin you will find a news sheet. Tear it out, write some news of yourself or fellow alumni and send it to us promptly.

This data is useful, interesting and always welcome.

THE ADMINISTRATION OF PROGRESS

Recently the Council of Maryland Psychiatric Societies issued a statement to the press concerning the operation of the Psychiatric Institute in the University Hospital. This statement and that of a medical faculty advisory committee to the President covered many problems associated with the development of a teaching program in psychiatry at the School of Medicine. There is no question that increasing attention must be paid to the problems of research and education involved with mental disease, particularly those dealing with emotional disturbances.

In the past, the difficulties involved in studies of normal and abnormal brain function plus the isolation of mental hospitals from university and medical school environments have had much to do with the failure to make progress in the prevention and cure of mental diseases and defects. In more recent years, with the development of psychologic test methods, better knowledge of chemistry and more definite information on the structure, function and metabolism of nerve tissue, there have developed increasing possibilities for the solution of many problems of mental health.

To date, the progress through direct studies of mental disease has not been great. The marked improvements in the incidence of mental disease that have taken place have come through the studies of infectious disease control and nutrition. Because of these studies during the last 20 years, syphilis, as a cause of mental disease, and nutritional deficiencies, such as pellagra, have ceased to be major mental diseases problems. It is difficult now to demonstrate neurosyphilitic diseases such as paresis and tabes dorsalis in any of our teaching hospitals. Formerly they dominated the mental health problems in most communities. In a similar way, the present development of tranquilizing drugs now used so extensively in the treatment of emotional problems as well as the psychoses did not have their origin through studies of mental health problems.

Chlorpromazine was first studied as a means to reduce battle-injured individuals to a state simulating hibernation, in order that their remaining body resources could be conserved until definitive surgical treatment could be given. The scientific studies on reserpine and rauwolfia were first made for the purpose of treating hypertensive cardio-vascular disease. The possible use of these substances for tranquilizing individuals suffering from emotional and other mental diseases came as a secondary consideration.

These facts and other experiences point out the necessity of keeping closely associated in the medical schools, the groups studying the psychic and soma. Body and mind are so interrelated that successful studies for the improvement of knowledge are best done in an environment where there is a free exchange of information and ideas on a working level. Evaluations of accomplishment can then be derived from the critical thinking of all clinical and basic science disciplines.

The moves that have been made in relationship with the psychiatric institute as

an integral part of the teaching area of the School of Medicine have always been made with these objectives. Because of the lack of adequate resources, a number of temporary moves have had to be made to insure that a basically sound teaching and investigative program was fostered in the medical school. This has meant we have had to temporarily use some of the resources present in a manner out of line with the ultimate plan. When you have only one pair of shoes you have to wear them every day and on Sunday also.

It is hoped that special interests will see the soundness of the necessity for good research and teaching in the basic structures of a medical school as the foundation for the development of special areas of study in the health field. Without a sound medical education and research program, medical schools cannot exist and psychiatry becomes relegated to isolation and domiciliary care of the mentally ill.

WM. S. STONE, M.D.

Dean

MARYLAND ALUMNI TO MEET ON OCCASION OF NORTH CAROLINA STATE MEETING

A dinner meeting is being planned for Maryland alumni attending the annual meeting of the Medical Society of the State of North Carolina to be held in Asheville beginning Sunday, May 4, 1958.

Representatives of the School of Medicine will be present at the meeting which will be held at the Battery Park Hotel on the evening of Monday, May 5, 1958. The evening will present an opportunity to renew old acquaintances and to make new ones. Dr. Leon H. Feldman, class of 1934, is in charge of arrangements and all reservations should be directed to his office, Flatiron Building, Asheville, North Carolina.

NEW CANCER FILM AVAILABLE BY A.C.S.

The American Cancer Society has recently announced the availability of a film entitled "Of Time and Two Women." This presentation, which is narrated by Dr. J. V. Meigs, is adequately supported by diagrams and illustrations including photomicrographs. The film is designed to acquaint all women with the necessity of and the basic procedures involved in obtaining and studying cervical cytologic smears in the control of genital cancer. The film should be of great use to practicing physicians in explaining to female audiences the importance of cancer prophylaxis in this sphere.

COLONEL ALBERT GLASS HONORED BY SIGNIFICANT MILITARY APPOINTMENT

Colonel Albert J. Glass, Medical Corps, United States Army and Chief of Psychiatry and Neurology Consultants Division, Office of the Surgeon General, has been appointed an ex-officio member of a newly created Advisory Editorial Board. This board will supervise and prepare the volumes on the History of Neuropsychiatry as applied to the Medical Department of the United States Army in World

War II. The volume, now in preparation, will become a part of a series of administrative and clinical volumes on the history of the Medical Department of which some 11 of a planned 40 volume series have already been published. Colonel Glass is a member of the class of 1932, School of Medicine, University of Maryland.

DR. OLIN C. MOULTON NAMED SURGEON GENERAL OF SONS OF AMERICAN REVOLUTION

ALUMNUS ONLY SECOND SO NAMED IN HISTORY OF THE NATIONAL
SOCIETY

Dr. Olin C. Moulton, class of 1934, was recently named Surgeon General for the Sons of the American Revolution. This honorary post has been filled on only one previous occasion because of the peculiarities of the required qualifications. Not only must one qualify for membership in the society but one must also qualify as a recognized physician and surgeon.

Dr. Moulton, a native of Gorham, Maine, was graduated from the University of Maine with the degree of Bachelor of Arts in 1930 and from the School of Medicine, University of Maryland in 1934. He served his junior internship at the hospital of the Maryland House of Correction and later did postgraduate work at Stanford University, the University of California School of Medicine and in Boston, Massachusetts. While active in many fraternal and civic organizations, he has served successively as past Chairman of the Board of the Washoe Medical Center and of the Washoe County Medical Society. He has served as Secretary of the Nevada State Medical Society and has been active in the American Medical Association, the Reno Surgical Society, the Pacific Coast Oto-Ophthalmological Society, and the Pan-American Ophthalmological Society. Dr. Moulton is a Diplomate of the American Board of Ophthalmology and a member of the American Academy of Ophthalmology and Otolaryngology. He has served as a member of the Advisory Insurance Committee for the Nevada State Medical Society and also for the Nevada Industrial Commission. From 1943 to 1946 he served in the United States Navy in the South Pacific Area.



DR. OLIN C. MOULTON

ITEMS

Dr. Morton Hammond, class of 1942, is serving as Chief of Allergy at the University of Miami, School of Medicine.

Drs. Joseph W. Scott, class of 1942, and **Daniel O. Hammond**, class of 1945, serve as two of the four Chiefs of Service in the Department of Gynecology.

Dr. Leon Donner, class of 1951 and **Alvin A. Stambler**, class of 1952, have recently been elected to fellowship in the American Academy of Pediatrics.

Dr. Jacob H. Conn, class of 1929, has recently been appointed Associate Editor of the new *Journal of the American Society of Clinical Hypnosis*. At the Fourth Annual Meeting of the American Academy of Psychosomatic Medicine held in Chicago Dr. Conn presented a paper entitled "Psychobiological Treatments." He later spoke on "Spontaneous Regression" at a meeting of the Society for Clinical and Experimental Hypnosis held in New York.

Dr. John E. Savage, Class of '32, was one of the speakers at the recent Florida Postgraduate Obstetric-Pediatric Seminar at Daytona Beach. Dr. Savage was also a member of a panel which discussed "Face, Brow and Transverse Presentations," at the Annual Clinical Congress of the American College of Surgeons at Atlantic City, N. J. in November 1957.

Dr. Joseph H. Brannen, class of 1945 and **Dr. Van Bennett**, class of 1942, recently moved into the newly constructed Doctors' Building, Incorporated of Valdosta, Georgia. Twenty-two practicing physicians and two dentists own and occupy this building, a unique enterprise in the town of Valdosta. Dr. Bennett is president of the company.

Dr. Bernard Milloff, class of 1944, was recently certified by the American Board of Internal Medicine. Dr. Milloff's current address is 750 South Federal Highway, Hollywood, Florida.

Dr. Edward W. Stevenson, class of 1949, is engaged in the practice of otolaryngology with his office at the Medical Arts Building, Birmingham, Alabama. Dr. Stevenson's brother, Mr. Thomas M. Stevenson, Jr. is a medical illustrator in the Department of Art, School of Medicine.

Dr. Lorman L. Hoopes, class of 1941, has recently been elected a Fellow in the American College of Surgeons. Dr. Hoopes practices at 17-A South Main Street in Minot, North Dakota.

Dr. James S. Hunter, Jr., class of 1941, was recently elected a Fellow in the American College of Surgeons. Dr. Hunter is a member of the staff of the Mayo Clinic, Rochester, Minnesota.

Dr. Aaron Feder, class of 1938, who is on the staff of the Cornell School of Medicine in New York, has recently been appointed Consultant in Internal Medicine to the Salvation Army's Booth Memorial Hospital in New York City. Dr. Feder is a diplomate of the American Board of Internal Medicine, has served as Assistant Professor of Medicine at Cornell and has been active on the staffs of Bellevue and the Long Island Jewish Hospitals.

Dr. Albert E. Blundell, class of 1949, was recently certified by the American Board of Anesthesiology. Dr. Blundell is engaged in the practice of anesthesiology at Saint Catherine and Saint Francis Cardiac Hospital, Long Island, New York. His address is 83-85 116th Street, Kew Gardens, Long Island, New York.

Dr. Henry W. Holljes, class of 1944, has recently returned from military service and has opened his offices for the practice of internal medicine at the Latrobe Building, Charles and Read Streets in Baltimore.

Dr. S. Harry Berns, class of 1934, was recently the author of a paper entitled

"Spinal Cord Injury—Rehabilitation Costs and Results and Follow-up in Thirty-one Cases". Dr. Berns studied patients with transverse myelopathy in order to evaluate both the immediate and subsequent results of a rather intensive rehabilitation program of at least a year. Of his 31 patients, 27, were trained in the course of their rehabilitation, in self-sufficiency in ambulation and elevation activities. Of these, 24 patients were successfully treated. At the time of follow-up, 42 per cent of the patients were employed full time in jobs and an additional 32 per cent were in vocational training programs preparatory to employment. This was in contrast to a 78 per cent unemployment rate and dependency prior to rehabilitation.

Dr. George McLean, class of 1916, has announced the association of Dr. C. Richard Fravel of the class of 1949 for the practice of internal medicine with offices at 705 Medical Arts Building in Baltimore.

Dr. Harry Kelmenson, class of 1938, has announced the removal of his office to 1109 North Calvert Street in Baltimore for the practice of general surgery.

Dr. Irvin B. Kemick, class of 1937, has announced the opening of his office at 22 East Eager Street, Baltimore 2, Maryland, for the practice of allergy.

Dr. John A. Spittel, Jr., class of 1949, is currently a member of the staff of the Mayo Clinic, Rochester, Minnesota.

Dr. Frank J. Ayd, Jr., class of 1945, has recently been elected Secretary of the Section on Neurology and Psychiatry of the Southern Medical Association. Dr. Harry M. Robinson, Jr., Professor of Dermatology, has recently been named counselor from Maryland to the Southern Medical Association.

DR. PHILLIPS SUBSTANTIAL CONTRIBUTOR TO STUDENT LOAN FUND

Dr. Malcolm Dudley Phillips, class of 1945, who practices in Darlington, Maryland, has made a substantial contribution to the Student Loan Fund. His generosity is acknowledged in the name of both the Medical Alumni Association and the School of Medicine.



National Society for Crippled Children and Adults
11 So. LaSalle, Chicago 3

Obituaries

Dr. Charles Bagley, Jr.

Dr. Charles Bagley, Jr., class of 1904 and Professor Emeritus of Neurologic Surgery in the School of Medicine, died of a coronary occlusion at the University Hospital on November 2, 1957. The details of Dr. Bagley's life and his many contributions to neurologic surgery and to the School of Medicine to which he devoted his entire career are recorded in the Bulletin (volume 37, no. 4 and volume 41, no. 4).



DR. CHARLES BAGLEY, JR.

Dr. Clarence W. Lurting

Dr. Clarence W. Lurting, P & S, class of 1903, died at his home in Pittsburgh, Pennsylvania, on July 22, 1957. Death was due to coronary occlusion while making a house call on one of his patients.

Dr. Lurting was born on December 3, 1874 in Pine Township, Allegheny County, Pennsylvania. After his preliminary education at Grove City College, Pennsylvania, he was graduated from the College of Physicians and Surgeons in Baltimore in 1903. After a year's internship at the Mercy Hospital in Baltimore he became

associated with Dr. Flynn in Fayette City, Pennsylvania, following which he established his practice in Pittsburgh where he remained throughout his entire active career.

Dr. Lurting, a well known general practitioner, also practiced general surgery during his lifetime. In 1953 the Allegheny County Medical Society recognized him with its plaque for 50 years of medical service to the community. The same year the University of Maryland awarded him the 50 year honor certificate as an alumnus. At the time of his death he was associated with St. John's General Hospital, Pittsburgh and was formerly on the staffs of the Presbyterian Hospital and Passavant Hospital of that city.

He was a member of the Phi Beta Pi medical fraternity.

Dr. Lurting's son, Dr. Frederick W. Lurting is a member of the class of 1943 and practices obstetrics and gynecology in Big Spring, Texas.

Dr. J. Henry Orff

Dr. J. Henry Orff, B.M.C., class of 1904, died in Copenhagen, Denmark on August 28, 1957. At the time of his death Dr. Orff was on a European trip accompanied by his wife and daughter. On September 6, 1957 a Memorial Service was held in his memory at the First Presbyterian Church, Reading, Pennsylvania. Drs. John Evans and Donald Roop of Baltimore were present at the services.

Dr. Joseph Victor Jerardi

Dr. Joseph Victor Jerardi, class of 1934, died suddenly at his home on September 26, 1957. Death was caused by a coronary occlusion.

Dr. Jerardi graduated from the Baltimore Polytechnic Institute in 1926 and from the University of Maryland in 1930 with a Bachelor of Science degree. After completion of his medical studies, he served successively as intern, resident in gynecology and obstetrics and resident in general surgery at Mercy Hospital from 1937-1938.

Shortly after the beginning of World War II, Dr. Jerardi was commissioned as a lieutenant commander in the United States Naval Reserve and was on active duty from 1942 through 1946, participating in the invasions of Normandy and Southern France. After the war he returned to Baltimore and to the practice of general surgery, serving on the staff of Mercy Hospital and as an Associate in Surgery in the School of Medicine. In addition he was a past President of the Staff of Mercy Hospital. At the time of his death he was medical director of the Western Maryland Dairy. Dr. Jerardi was a member of Zeta Chapter of Phi Beta Pi Medical Fraternity, the Medical and Chirurgical Faculty of Maryland, the American Medical Association, and the American College of Surgeons.

In a tribute published in the Mercy Hospital magazine "Scope," Dr. William H. Grenzer commented, "His keen insight into surgical problems and his expert technical skill were surpassed only by his kindly and genteel approach to his patients."

Dr. William G. Harper

Dr. William G. Harper, class of 1910 P & S, and long a practitioner of Elkins, West Virginia, died on August 27, 1957.

The West Virginia State Medical Society chose Dr. Harper as the State's most honored general practitioner at a recent meeting of the Association held at White Sulphur Springs. One week before his death Dr. Harper was honored as "General Practitioner of the Year" by the state of West Virginia.

Beebe, Linn Clair, Hamilton, N. Y.; B.M.C., class of 1893; aged 83; served during World War I; died, June 12, 1957, of hiccoughs of 3 weeks duration, associated with esophageal hernia and diverticulum of the terminal part of the esophagus.

Breslin, Robert H., Warwick, R. I.; P & S, class of 1915; aged 68; served during World War I; died, June 25, 1957.

Brown, Paul, Baltimore, Md.; class of 1909; aged 72; died, May 25, 1957.

Byers, Horace Wellington, Baltimore, Md.; class of 1914; aged 68; died, May 8, 1957.

Cooke, Grady C., Morehead City, N. C.; class of 1919; aged 63; died, July 7, 1957.

DeMerritt, Charles Law, Union City, N. J.; B.M.C., class of 1897; aged 85; died, June 4, 1957, of Parkinson's disease and uremia.

Donohue, John Daniel, Uncasville, Conn.; B.M.C., class of 1909; aged 71; died, May 13, 1957, of carcinoma of the large intestine.

Eagle, Arthur B., Martinsburg, W. Va.; class of 1904; aged 76; died, July 22, 1951, of coronary disease.

Foley, Charles J., Havre de Grace, Md.; class of 1921; aged 61; died, June 26, 1957.

Gordon, Walter C., Providence, R. I.; class of 1907; aged 79; died, June 1, 1957, of hepatitis and cirrhosis of the liver.

Griffith, Wilbert E., Yatesboro, Pa.; class of 1908; aged 71; died, May 27, 1957, of coronary arteriosclerosis.

Harsh, Enoch Herbert, Minerva, O.; B.M.C., class of 1901; aged 80; died, April 17, 1957, of coronary occlusion.

Harsha, Gene M., Sistersville, W. Va.; class of 1930; aged 51; served during World War II; died, July 22, 1957, of sprue.

Hochfeld, Leo, New York, N. Y.; class of 1937; aged 50; died, June 30, 1957, of Hodgkins' disease.

Huber, John George, Evansville, Ind.; B.M.C., class of 1898; aged 82; served during the Spanish-American War and World War I; died, May 10, 1957, of arteriosclerosis.

Jackson, Andrew J., Waterbury, Conn.; P & S, class of 1915; aged 64; served during World War I; died, May 16, 1957, of coronary disease.

Lipkin, Harry, New York, N. Y.; P & S, class of 1914; aged 66; died, July 20, 1957, of carcinoma of the left superior maxillary antrum.

Mackin, M. Charles, Des Moines, Ia.; B.M.C., class of 1891; aged 91; died, July 18, 1957, of cerebral hemorrhage.

McCutcheon, Merle D., East Liverpool, O.; class of 1908; aged 72; served during World War I; died, June 26, 1957, of cancer.

Mortimer, Egbert Laird, Baltimore, Md.; class of 1932; aged 52; died, December 2, 1956, of cerebral hemorrhage.

Moseley, William Edward, Mt. Savage, Md.; B.M.C., class of 1906; aged 74; died, November 21, 1957, of cerebral hemorrhage.

Mutchler, H. Raymond, Dover, N. J.; P & S, class of 1911; aged 69; died, March 30, 1957, of acute pulmonary edema.

Nance, Fuller, Baltimore, Md.; class of 1914; aged 75; died, April 3, 1957.

Naughton, John Philip, Los Angeles, Calif.; P & S, 1896; aged 89; died, August 6, 1957, of heart disease.

O'Neil, Owen S., Omaha, Neb.; B.M.C., class of 1897; aged 85; died, November 9, 1956, of bronchopneumonia.

Pullen, Guy, Foote, Leonia, N. J.; class of 1922; served during World War I; aged 60; died, April 1, 1957.

Reardon, William Francis, Hartford, Conn.; class of 1909; aged 70; served during World War I; died, March 29, 1957, of bronchopneumonia and carcinoma of the bladder.

Riggs, George Henry, Ijamsville, Md.; class of 1891; aged 86; died, March 10, 1957.

Ross, George Perry, Auburn, N. Y.; class of 1915; aged 64; died, August 8, 1957, of coronary thrombosis.

Russell, Thomas J., Philadelphia, Pa.; class of 1910; aged 71; died, July 11, 1957.

Schaefer, Otto, Baltimore, Md.; class of 1894; aged 89; died, July 1, 1957 of heart disease.

Seay, Thomas Waller, Spencer, N. C.; class of 1921; aged 62; served during World War I; died, May 20, 1957, of heart disease.

Sekerak, Raymond A. J., Bridgeport, Conn.; class of 1929; aged 50; died, March 9, 1957, of coronary thrombosis.

Shack, David N., Newark, N. J.; B.M.C., class of 1910; aged 71; died, July 5, 1957, of cerebral hemorrhage.

Shaver, William T., Albemarle, N. C.; class of 1919; aged 63; served during World War I; died, July 16, 1957, of heart disease.

Silver, Fletcher, Goldsboro, Md.; B.M.C., class of 1896; died, May 5, 1957, of carcinoma of the prostate.

Silverstein, Jacob M., Millburn, N. J.; class of 1925; aged 57; died, March 3, 1957, of coronary disease.

Smith, Henry Lee, Baltimore, Md.; class of 1894; aged 88; died, January 9, 1957, after a fracture of the hip.

Smith, William Carey, Goldsboro, N. C.; class of 1936; aged 47; died, December 10, 1956, of cerebral hemorrhage.

Solter, Harry Christian, Sweetspring, W. Va.; class of 1899; aged 79; died, June 6, 1957, of coronary thrombosis.

Spurrier, Oliver Walter, Baltimore, Md.; class of 1929; aged 52; died, February 15, 1957, of coronary thrombosis.

Stahl, William Martin, Sr., Danbury, Conn.; class of 1914; aged 65; served during World War I; died, December 11, 1956, of shock and exposure to cold.

Trimble, Staunton, Burnsville, W. Va.; B.M.C., class of 1908; aged 74; died, July 5, 1957.

Upham, Roscoe Charles, Biddeford, Me.; B.M.C., class of 1908; aged 72; died, March 15, 1957, of a heart attack.

Vermilyea, Charles Herbert, Russell, Pa.; B.M.C., class of 1897; aged 85; died, February 16, 1957.

Weitzel, William Forrest, Indiana, Pa.; B.M.C., class of 1903; aged 79; died, June 2, 1957, of pneumonia.

Young, Charles A., Roanoke, Va.; class of 1914; aged 67; served during World Wars I and II; died, July 25, 1957, of carcinoma of the colon.





MEDICAL SCHOOL SECTION



DR. BRODY NAMED PROFESSOR



DR. EUGENE B. BRODY

Dr. Eugene B. Brody has recently been appointed Professor of Psychiatry at the University of Maryland School of Medicine. Graduated from the University of Missouri in 1941 with a Master of Arts in Psychology, he received his medical degree in 1944 at Harvard Medical School. His internship and assistant residency were served in Psychiatry at the New Haven Hospital and from 1946 to 1948 he held various posts in the military psychiatric services. During this time he served as a consultant to the International Military Tribunal in Nürnberg. After returning to Yale Psychiatric Institute where he served a residency in Psychiatry, he was appointed instructor in Psychiatry at Yale University School of Medicine in 1949 and was advanced in rank during the next four years to Associate Clinical Professor of Psychiatry.

Dr. Brody has published about 30 papers in psychology and psychiatry with particular emphasis upon the effect of hormones on reflex activity and in various psychiatric disorders. Dr. Brody has been concerned with the interpersonal relations among physicians and psychiatrists, particularly in research situations. He is a fellow of the American Psychiatry Association, a member of the APA Committee on relations with psychology and the American Psychosomatic Society. He is also an examiner in psychiatry for the American Board of Psychiatry and Neurology. A graduate of the New York Psychoanalytic Institute, Dr. Brody regards psychoanalysis as a particular subspecialty of Psychiatry.

DR. GUILFORD G. RUDOLPH NEW ASSOCIATE PROFESSOR
OF BIOLOGICAL CHEMISTRY

Guilford G. Rudolph, Ph.D., has been appointed Associate Professor of Biological Chemistry effective September 1, 1957. Dr. Rudolph comes from Nashville, Tennessee where he served as Assistant Director and Principal Scientist, Radioisotope Unit, Veterans Administration Hospital and Assistant Professor of Biochemistry, Vanderbilt University Medical School.



DR. GUILFORD G. RUDOLPH

Dr. Rudolph was born on January 2, 1918 in Kiowa, Kansas; is married, and has three children. He received his B.S. degree in 1940 from the University of Colorado and his M.S. degree from Wayne University in 1942 where he served as Teaching Fellow in Biochemistry. He then joined the armed forces during World War II and served as a naval aviator from 1942-45. After completing his military duties he joined the staff of the Biological Chemistry Department of the University of Utah School of Medicine as Instructor in Biochemistry and received his Ph.D. degree in 1948. During the following year he served as Research Associate with the late biochemist E. S. Guzman Barron in the Department of Biochemistry of the University of Chicago. In 1949 to the present time he worked for the Veterans hospital in Nashville. During this time he took several advanced courses in the use of radioisotopes

at the Oak Ridge Institute for Nuclear Studies.

Dr. Rudolph is a member of the American Board of Clinical Chemistry, American Chemical Society, American Association for the Advancement of Science, Sigma Xi, The American Physiological Society, and the New York Academy of Science. Dr. Rudolph's research activities appear in 22 publications in the field of sex hormones, water and electrolyte balance, intermediary metabolism, and the use of radioisotopes in biochemical research.

The new radioisotope research laboratory which is now being installed in the Department of Biological Chemistry will be directed by Dr. Rudolph. He will introduce experiments in radiobiochemistry into the course in biochemistry for the medical students and will also develop a more advanced course in this subject for the graduate students. Dr. Rudolph will also continue his research in the field of sex hormones.

DR. ARTHUR J. EMERY, JR., APPOINTED TO FACULTY

The vacancy created by the resignation of Dr. Frank D. Vasington has been filled by the appointment of Dr. Arthur J. Emery, Jr., Ph.D., as Assistant Professor of Biological Chemistry effective September 1, 1957.

Dr. Emery was born in Middleburg, Pennsylvania on December 1, 1923 and is married but has no children. He attended Bucknell University at Lewisburg, Pennsylvania from 1941-43 after which he went in active service in the United States Naval Hospital Corps on both domestic and foreign duty during World War II. He then returned to Bucknell University where he received the B.S. degree in biology and bacteriology in 1947. From 1947-49 he was Research Associate in Bacteriology at Cornell University and the New York State Agricultural Experiment Station and from 1949-51 Research Chemist for the Biological Stain Commission at the University of Rochester.

From 1950-54 the new appointee was Research Fellow in Biochemistry at the University of Rochester School of Medicine and Dentistry where he was awarded the Ph.D. degree in 1954. From 1954-57 Dr. Emery was Associate Scientist (Biochemistry) in the Flash Burn Section of the University of Rochester Atomic Energy Project and Instructor in Biochemistry at the University of Rochester School of Medicine and Dentistry.

Dr. Emery is a member of the American Association for the Advancement of Science, American Institute of Biological Sciences, Sigma Xi, and American Chemical Society.

Dr. Emery's research activities appear in 12 publications in the fields of biological stains, intracellular enzymes, hemoglobinemia, and biochemical changes in the various constituents in the skin of hogs following flash burn.



DR. ARTHUR J. EMERY, JR.

OF TOYS AND LEAD

In September reports were circulated by the Toys Guidance Counsel of New York that Japanese toys being imported in the United States were painted with materials containing toxic amounts of lead which could be ingested by children to whom the toys were given, possibly causing lead poisoning.

The Surgeon General of Public Health Service appointed a committee to study the problem and make recommendations. The committee consisted of Dr. Elston L. Belknap, Dr. Samuel P. Bessman, Dr. R. A. Kehoe, Dr. Lewis W. Spolyar and Mr. Jerome Trichter. The committee reported that most toys from all countries including United States were painted with similar paints containing lead and that this was not a problem specifically of the Japanese toys. The committee has had two meetings and has outlined general plans for the study and handling of the problem of lead poisoning.

MEDICAL LIBRARY NOTES

The following donors added books and journals to the library collection between October 1, 1957 and February 1, 1958:

Dr. Samuel P. Bessman	Mrs. David I. Macht
Dr. Louis V. Blum	Dr. Leopold May
Mrs. Peter T. Bohan	Dr. Robert T. Parker
Dr. Robert W. Buxton	Dr. Maurice C. Pincoffs
Dr. Poul A. Christensen	Mrs. Thomas F. Stevens
Mr. Albert Daub	in memory of
Dr. Frank W. Hachtel	Dr. Thomas F. Stevens
Mrs. John G. Jeffers	Dr. William S. Stone
Dr. Arthur M. Kraut	Dr. Eduard Uhlenhuth

Mrs. John G. Jeffers has made a unique gift to the medical library collection. Perhaps this is not surprising from one whose grandfather, father, and husband were all illustrious medical men of Maryland. Of the three her father, Dr. Eugene Fauntleroy Cordell, was most closely connected with the medical library of the University of Maryland—in fact, he is part of the history of the library, having served as librarian from 1903 until his death in 1913.

Dr. Cordell's greatest fame, of course, lies in his invaluable volumes on the medical history of Maryland, although his touch seemed to appear also in most of the outstanding medical activities in Maryland during his lifetime. His contributions to the School of Medicine, University of Maryland and his intense loyalty to it make Mrs. Jeffers' recent gift of even greater value.

This gift is a handwritten notebook of about 150 pages, written by Dr. Cordell in the late nineteenth century to record his impressions of well-known people and significant activities in Baltimore; and to express some of his own philosophy in relation to his day. Since these notes were intended only to fulfill his own need for expression, they are spontaneous and more acute in comment than writings tempered for publication. This notebook will be added to the Cordell Historical Collection as one of the library's treasures.

Mrs. Jeffers has presented the library with other memorabilia of the Cordell family also: photographs, portraits, diplomas, notes, etc. But the handwritten notebook which she has entrusted to a future in the medical sciences library stands unique.

BUILDING NOTE

According to information released through the Dean's office, plans are being readied for commencement of building activities for the new Sciences Library for the Baltimore Schools and for the Student Union Building on or about May 1, 1958.

MERCY HOSPITAL NEWS

The establishment of a Cardiological Research Fund, an 18 month Fellowship in cardiology has been made possible. The first appointee to this Fellowship is Dr. Gerard Church of Glasgow, Scotland, recently of the Glasgow Royal Infirmary and the Glasgow Victoria Infirmary where he has had extensive training in cardiology.

Dr. Church will work in collaboration with Dr. Henry J. L. Marriott who heads the Electrocardiographic Unit.

The grant, made by Burroughs Wellcome and Company involves special research in digitalis intoxication.

FACULTY CHANGES IN THE DEPARTMENT OF BIOLOGICAL CHEMISTRY

Raymond E. Vanderlinde, Ph.D., Associate Professor of Biological Chemistry, has resigned to assume the directorship of the Biochemical Laboratory of the State University Medical Center at Syracuse. He will also hold an appointment as Assistant Professor in the Department of Biological Chemistry of the Medical School. This move actually constitutes a return to his alma mater.

During his six years at our medical school Dr. Vanderlinde established a brilliant record as a teacher, lecturer, research worker, and participator in local scientific affairs. Dr. Vanderlinde was very well liked by all the students and his colleagues who regret exceedingly his departure. We all wish him well in his new positions.

Frank D. Vasington, Ph.D., Assistant Professor of Biological Chemistry, has resigned after two years at Maryland. He received his doctorate from this department in 1955. Dr. Vasington will join the McCollum Pratt Research Institute at Johns Hopkins University where he has accepted a polio fellowship to work with Dr. Alvin Nason. He will work in the field of enzymology. Dr. Vasington made a most favorable impression on his students and colleagues by his ability as a teacher and friendly personality. We regret his departure but feel sure that he will do well in his new field of endeavor.

DEPARTMENT OF ANATOMY

Dr. Frank H. J. Figge, Professor Anatomy, read a paper at the American Academy of Neurology on April 25 entitled "Quantitative Determination of Porphyrins in the Central and Peripheral Nervous System". This was done in collaboration with Dr. Harvey Solomon.

Dr. Figge also presented a paper on April 2 at the meeting of the American Association of Anatomists entitled "The Red Fluorescence of the Forestomach of Mice and Rats".

At a meeting of the Head and Neck Society, Dr. Figge presented a paper entitled "Cancer Research, Past, Present, and Future".

Dr. Theodore F. Leveque presented a paper entitled "The Effects of Dehydration on the Mitotic Activity in the Hyphophysis Cerebri", before the American Association of Anatomists.

Dr. H. Patterson Mack and Dr. Robert E. McCafferty also presented a paper entitled "Hematoporphyrin Accumulation in Fetal and Maternal Tissues of the Mouse Following Single Intraperitoneal Injections".

At the same meeting Dr. Henricus G. J. M. Kuypers presented a paper entitled "Corticofugal Connections to the Lateral Reticular Nucleus of the Medulla Oblongata".

Dr. Vernon E. Krahle presented a paper entitled "The Anatomy of the Mouse Lung

with Particular Reference to its Postnatal Development". Dr. Krah1 also spoke at the meeting of the Society for Experimental Biology and Medicine on February 7, his paper being entitled "The Nature of the Respiratory Surfaces of the Lung".

DEPARTMENT OF PHARMACOLOGY

Dr. Raymond M. Burgison, Associate Professor of Pharmacology, presented a paper entitled "Preparation and Preliminary Pharmacologic Evaluation of 8-Amino and 8-Substituted-Amino Adenines as Blood Pressure Depressants in the Dog", before the American Chemical Society, Medicinal Chemistry Section, San Francisco, California on April 15, 1958.

The following papers were presented before the Pharmacology Section of the Federated Societies for Experimental Biology held in Philadelphia the week of April 14, 1958.

Dr. Edward B. Truitt and Ann M. Morgan read a paper on "Absorption of Aspirin and Buffered Aspirin from the Stomach in Man".

Alfred S. C. Ling and Dr. John C. Krantz, Jr. presented a paper entitled "The Effect of Atropine, Thiopental Sodium or Succinylcholine and Indoklon on the Heart".

Dr. Johnson S. L. Ling, Alfred S. C. Ling, Dr. Edward B. Truitt and Dr. John C. Krantz, Jr. presented a joint paper entitled "Effect of Repeated Convulsive Doses of Indoklon in Dogs and Monkeys".

DEPARTMENT OF BIOCHEMISTRY

Members of the Department of Biochemistry participated in the Federation Meeting which included the American Society of Biological Chemists.

Dr. Edward J. Herbst presented a paper entitled "Inhibition of Nucleic Acid Degradation in Bacteria by Spermine" and Donald L. Keister presented a paper entitled "The Occurrence and Properties of Nucleic Acid-Amine Complexes".

PAKISTAN PROFESSOR VISITS SCHOOL OF MEDICINE

Dr. Mazhar-ul-Haque, M.D., B.S., Professor and Head of the Department of Pharmacology of the Dow Medical College, Karachi, Pakistan, has been Visiting Professor of Pharmacology since the middle of January, 1958. Professor Haque, who is visiting this country as a traveling scholar under the auspices of The International Cooperation Administration, will be in residence at the School of Medicine for several additional months. During his residence, Professor Haque will participate in the teaching and research activities of the Department of Pharmacology. He also plans to visit a number of medical schools and research institutions during his stay in this country.

Professor Haque is especially interested in pharmacodynamics, and has published a number of research papers on active principles of drugs used in Unani and Aurvedic Medicine. In addition, he has published a number of papers on hypnotics, analgesics, sedatives and cardiovascular drugs.

He occupies a number of important governmental and scientific posts in his native country, among which are: Examiner in Pharmacology to the Universities of Karachi, Sind, Punjab, and Dacca; member of The Drugs Technical Advisory Board, The Committee on Pharmaceutical Standards, The Drugs, Pharmaceuticals and Pest

Infestation Research Committee of The Pakistan Council of Scientific and Industrial Research; Vice-president of the Pharmaceutical Society of Pakistan and a member of the Executive Committee of the Pakistan Medical Association.

DR. GRANT E. WARD DIES

WAS HEAD OF UNIVERSITY TUMOR CLINIC FOR MANY YEARS

Dr. Grant E. Ward who for many years headed the tumor clinic at the University Hospital and formerly Professor of Surgery in the School of Medicine, died February 1958. Death resulted from an intestinal carcinoma.

Dr. Ward was born in Lorain, Ohio August 28, 1896. His father was dean of one of the departments of Baldwin Wallace College, Berea, Ohio.

An alumnus of Baldwin Wallace College, he received the degree of doctor of medicine in 1921 from the Johns Hopkins University School of Medicine. He then served as resident house officer at the Johns Hopkins Hospital from 1921 to 1922 and from 1922 through 1927 was an associate at the Howard A. Kelly Hospital which specialized in radiation therapy. During this time Dr. Ward perfected his techniques of the electro-surgical treatment of malignancy and interstitial radiation for which he subsequently became well known as a specialist. In 1932 he co-authored a volume "Electrosurgery" in conjunction with Dr. Howard A. Kelly.

In 1930 he was nominated to the faculty of the School of Medicine and until his resignation in 1951 developed the tumor clinic and radiation therapy in the University Hospital. In 1950 Dr. Ward published his most well known text, "Tumors of the Head and Neck" which has become a standard reference in this field.

A man of intense thoroughness, interest and personal charm, Dr. Ward's own life was beset by numerous physical misfortunes, one resulting in a considerable degree of neuromuscular loss all of which he accepted with a renewed fortitude and faith. Indeed, it was during the period of some of his greatest misfortunes that some of his most productive professional years took place.

He was a Diplomate of the American Board of Surgery and for a number of years was president of the Maryland Division of the American Cancer Society.

FACULTY NOTES

Dr. Theodore Woodward and Dr. Samuel P. Bessman were guest instructors at the Richmond session of the American College of Physicians held in Richmond, Virginia on October 16, 1957.

Dr. Samuel P. Bessman took part in a conference on Hereditary Diseases in Children held at the City of Hope Medical Center, Duarte, California, October 12th and 13th, 1957.

The Eastern Panhandle Medical Society and The West Virginia Academy of General Practice presented its Second Postgraduate Institute at the Shenandoah Hotel, Martinsburg, West Virginia, September 21st and September 22nd, 1957.

Those participating from the University of Maryland School of Medicine were:
John C. Krantz, Ph. D., Professor of Pharmacology.

"Pharmacologic Horizons—An Avalanche of New Drugs."

Louis M. Krause, M.D., Professor of Clinical Medicine.

"Peripheral Vascular Disease—Diagnosis and Treatment."

Robert W. Buxton, M.D., Professor of Surgery and Department Head.

"Diagnosis and Treatment of Acute and Chronic Major Venous Occlusions."

D. Frank Kaltreider, M.D., Professor of Obstetrics and Gynecology.

"Nutrition in Pregnancy."

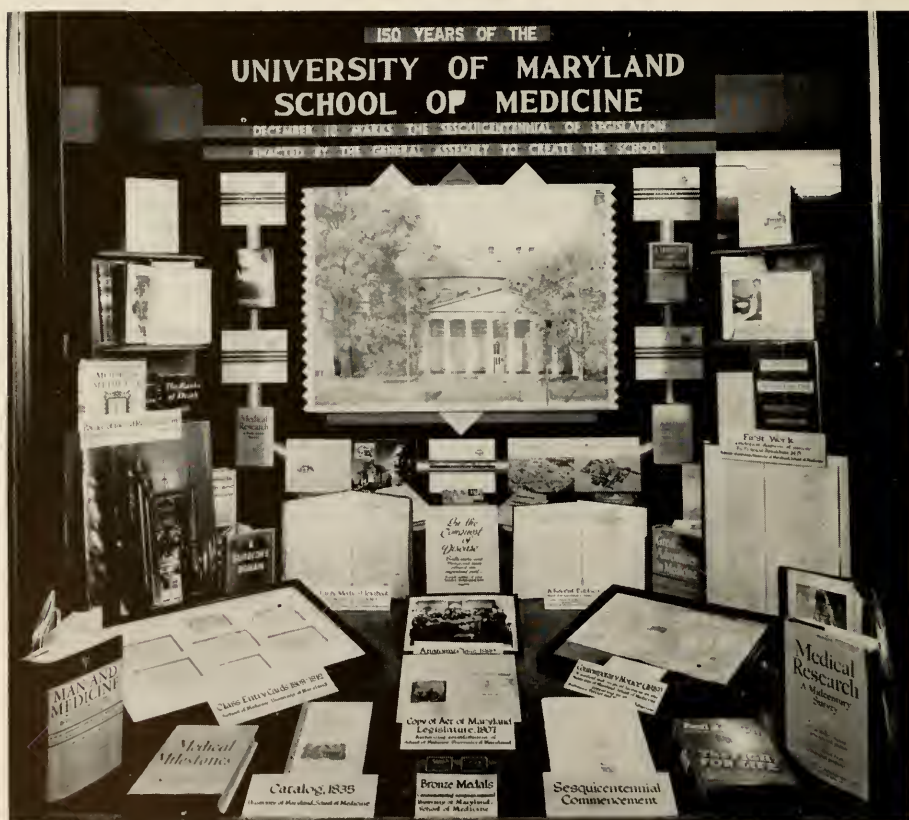
FACULTY ACTIVE AT SOUTHEASTERN SURGICAL CONGRESS—MARCH 10-13, 1958

At the Twenty-Sixth Annual Assembly of the Southeastern Surgical Congress a number of the members of the faculty of the School of Medicine participated in the discussions. These included Drs. Robert W. Buxton, Arthur L. Haskins and John D. Young, Jr.

PRATT LIBRARY DISPLAYS HISTORIC DOCUMENTS AND PUBLICATIONS OF SCHOOL OF MEDICINE

HONORS SESQUICENTENNIAL WITH APPROPRIATE WINDOW EXHIBIT

The Enoch Pratt Library commemorated the sesquicentennial of the School of Medicine through an exhibit of historical documents and publications displayed in one of the Library windows late in November, 1957.



Baltimore's Enoch Pratt Library exhibits documents and photographs on occasion of Sesquicentennial Year

TEA HELD IN HONOR OF SESQUICENTENNIAL

Guests of the faculty and students of the School of Medicine gathered in Chemical Hall on the afternoon December 18, 1957 to celebrate the 150th anniversary of the granting of the Charter to the School of Medicine by the Legislature of the State of Maryland. Chemical Hall was appropriately decorated for the holiday season. Tea was served.

DR. SMADEL FIRST PINCOFFS LECTURER IN MEDICINE

Dr. Joseph E. Smadel, Associate Director of the National Institutes of Health was the first annual Pincoffs lecturer in internal medicine. Dr. Smadel spoke on the subject "Quo Vadis—Rickettsioses?". The lecture was held on December 16, 1957 in Chemical Hall.

FACULTY PARTICIPATE IN INTERNATIONAL SYMPOSIUM

Dr. Robert Grenell and Dr. Leopold May presented their findings on the energy generation in the cerebral cortex at the Ninth International Congress for Cell Biology held in Saint Andrews, Scotland from August 28 to September 3, 1957.

WHERE IT WENT

American Medical Education Fund Distribution

Figures for the A.M.E.F. and National Fund for Medical Education contributions and their distribution are now available for the year 1956. In 1956 the School of Medicine received a total of \$11,557.75 from the American Medical Education Foundation. The average gifts through alumni giving in the United States (all medical schools) was \$13,404.00. This means that the average medical school during 1956 received from alumni direct giving \$27,000.00, from alumni through A.M.E.F. \$13,404.00 or a total from alumni as an average of \$40,404.00.

In the same period of time, University of Maryland alumni earmarked through A.M.E.F. a total of \$11,557.00. This leaves an obvious deficit of \$28,847.00.

The School of Medicine is making a great effort to improve medical education in Maryland. If this is to progress, additional and improved support from alumni is most urgently needed and is respectfully requested. The A.M.E.F. provides each physician an opportunity to aid his Alma Mater. The University of Maryland Alumni Association numbers 3,425 members. To equal the annual national average a contribution of \$12.00 per year from each alumnus would place the School of Medicine in a position of national first rank in comparison with other schools and the activity of their alumni in its behalf.

HOW IT WAS SPENT

Contributions by alumni of the School of Medicine through A.M.E.F. and received by the Medical School were spent as follows.

1. Faculty salary supplements in order to either obtain or hold key faculty appointments pending basic salary adjustments. . . \$3,450.00 (30%)
2. To support faculty education for short courses to develop special knowledge and skills. \$3,220.00 (28%)

- | | |
|--|------------------|
| 3. To support student research fellowships..... | \$1,800.00 (15%) |
| 4. To purchase research equipment..... | \$1,937.00 (17%) |
| 5. To initiate research studies until grants could be obtained.... | \$1,150.00 (10%) |

The use of A.M.E.F. funds provides a most valuable means whereby the Dean of the Medical School can broaden existing programs or initiate new educational programs without resorting to time consuming budgetary procedure or to subject the educational program to the contingencies of grants in aid. The Fund thus becomes a most valuable adjunct to the working monies of the School of Medicine and shows promise of becoming an ever increasing and important factor in the progressive development of sound educational policies in the School of Medicine.

DEAN'S LETTER

Dear Members of the Medical Alumni and Friends of the Medical School:

The Legislature has appropriated one million dollars to acquire property for the Baltimore campus. This will be matched in an urban renewal program with continued appropriations each year until the campus has been enlarged by approximately nine city blocks. We also received an appropriation of \$40,000 for planning money for the new Out-Patient Building, with the expectation that construction money will be appropriated in 1960. In a year of restricted income and recession, the Legislature at Annapolis has continued to give reasonable support for the medical school's operating income.

There was a budget cut which will delay the securing of needed equipment and supporting personnel, such as a Ph.D. faculty member in Physiology with interest in the field of electronics.

If we could secure \$30,000 in support from our alumni, our programs of medical education and research could continue to improve without interruption. There are 3400 living alumni of the School of Medicine still active in medicine. A gift of \$10.00 per alumnus to the American Medical Education Foundation would insure continuation of progress in improving medical education at Maryland. Let's support AMEF and insure the quality of the graduates of the School of Medicine.

WM. S. STONE, M.D.

Dean

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MEDICAL ALUMNI DAY, THURSDAY, JUNE 5, 1958

PROGRAM

9:00-10:00 A.M.—Registration—Coffee and doughnuts

10:00-11:00 A.M.—Scientific Session

1. Dr. Thomas B. Turner, Dean of the School of Medicine, Johns Hopkins University
2. Dr. Robert W. Buxton, Professor of Surgery, University of Maryland School of Medicine

11:00-12 M.—Presentation of Annual Alumni Honor Award and Gold Key
General business meeting of Medical Alumni Association

12:30 P.M.—Complimentary luncheon

Afternoon—Free time. Inspection of Medical School and University Hospital
Individual class reunions

7:00 P.M.—Annual Alumni Banquet and Dance



Reproduction of oil painting in Army Postgraduate Medical School, showing General Norman T. Kirk and Staff as it existed during World War II. Dr. Fred T. Rankin is fifth from the left. Left to right, the picture includes; Brig. Gen. Charles C. Hillman, U.S.A.; Brig. Gen. Hugh J. Morgan, U.S.A.; Brig. Gen. Raymond W. Bliss, U.S.A.; Col. James R. Hudnall, M.C.; Brig. Gen. Fred W. Rankin, U.S.A.; Lt. Col. Robert J. Carpenter, M.C.; Col. Edward Reynolds, M.A.C.; Brig. Gen. Raymond A. Kelsner, U.S.A.; Maj. Gen. Norman T. Kirk, the Surgeon-General; Maj. Gen. Robert H. Mills, U.S.A.; Maj. Gen. George F. Lull, U.S.A.; Brig. Gen. James S. Simmons, U.S.A.



GENERAL NORMAN T. KIRK TO RECEIVE ALUMNI HONOR AWARD

By vote of the Board of Directors of the Medical Alumni Association, Dr. Norman T. Kirk, class of 1910, and Major General (the Surgeon General) United States Army (Ret'd) was nominated recipient of the 1958 Alumni Honor Award and Gold Key for "Outstanding contributions to medicine and distinguished service to mankind".

General Kirk, who served as Surgeon General, United States Army during World War II is a man of international renown, achieving the pinnacle of his fame during

history's fiercest and most widespread conflict. As Surgeon General of the United States Army he was confronted with problems concerned not only relating to the care of the wounded but to global concepts of disease. That the death rate from disease was as low as it was during this conflict; that the soldier could enter battle knowing full well that medical aid was not only near but that it was good, stands as a lasting tribute to the organizational capacity of General Kirk and the men whom he chose as his associates.

Dr. Kirk is a native of Rising Sun, Maryland, the son of Thomas and Anna (Brown) Kirk. He graduated from the Tome Institute in 1906 and received the degree of Doctor of Medicine from the University of Maryland in 1910.

Choosing the Medical Corps of the United States Army as his career, he was commissioned a First Lieutenant in the Medical Corps in May, 1912, rising through successive ranks to that of Major General and Surgeon General which he held from June 1, 1943 through 1947.

General Kirk's professional achievements are centered chiefly in the field of orthopedic surgery where he contributed extensively to the surgery of amputations, the reconstruction of amputation stumps and kineplastic surgery. Among his many contributions are included chapters on amputation in Dean Lewis' System of Surgery and a chapter on tetanus in Nelson's Loose Leaf Surgery. He is a Diplomate of the American Board of Orthopedic Surgery, a Fellow of the American College of Surgeons and a member of many learned societies and medical organizations.

General Kirk's military career included a number of important commands including that of Commanding Officer of the Percy Jones General Hospital, Battle Creek, Michigan and Walter Reed Army Hospital.

His many military decorations include the Distinguished Service Medal of the United States and the Legion of Merit. He also holds military decorations awarded by many foreign nations. He is a member of the Nu Sigma Nu medical fraternity and the Alpha Omega Alpha. Dr. Kirk holds honorary degrees from Davidson College and the University of Maryland (Sc.D.) and a Doctor of Laws degree from Columbia University awarded in 1947.

A distinguished alumnus, soldier, surgeon and investigator; the Medical Alumni Association is proud to nominate this deserving alumnus for its highest honor.

IT'S REUNION TIME

Numerous classes have signified their intentions of holding formal reunions during the June Week alumni festivities beginning Thursday, June 5, 1958.

Among these are the following:

Class of 1928

The reunion committee headed by Si Brager and Jack Singer has announced the following ambitious program.

On Thursday, June 5th, the class will register and will then inspect the new developments at the School of Medicine. There will be a cocktail party preceding the Alumni Banquet. The class will meet and attend the Alumni Banquet and dance.

On Friday, June 6th, "brunch" for men only is planned at the Lord Baltimore Hotel with a similar party for the ladies. A scientific program with movies for doctors and their wives will immediately follow the above. Again, another cocktail party will precede the 1928 class banquet. At the banquet guests will include Drs. Davis, Hachtel, Pincoffs, Spencer and Wylie. There will be dancing following the class dinner.

On Saturday, June 7th, there will be a lawn and swimming party at the home of Dr. Jack Singer (weather permitting). Dr. Singer will take care of hotel reservations. A package deal is being planned.

Class of 1938

Drs. Theodore and Celeste Woodward are heading a local committee which has in progress a plan for a reception prior to the annual alumni banquet and perhaps some function following the banquet. At the time the Bulletin goes to press the committee has not as yet formed its final plans, however, a notice will be sent to all members of the class of 1938 in ample time to make arrangements to attend the 20 year reunion in Baltimore on June 5th. It is anticipated that arrangements will again be made through the Alumni Office so that hotel reservations can be secured through Mrs. Minette Scott the Executive Secretary.

FIFTY YEAR CLASSES TO BE HONORED ON ALUMNI DAY

Some 59 members of the classes of 1908 of the University of Maryland School of Medicine, the Baltimore Medical College and the College of Physicians and Surgeons will round out a half century of the practice of medicine on June 5, 1958. In recognition of this unusual and sustained interest and continued devotion to the practice of medicine, the Medical Alumni Association will present to these physicians the honorary 50 year diploma. Dr. William B. Long, Jr., president of the Medical Alumni Association will award these certificates at the annual banquet which will be held on the evening of June 5, 1958 at the Lord Baltimore Hotel.

The members of the class of 1908 who will receive their fifty year certificates include the following.

University of Maryland

James Leland Anderson
William C. Davis
William M. Hollyday
James K. Insley
Lawrence Kolb
Charles E. McBrayer
Elias S. Nathanson
Ernest V. Nolt

Lester D. Norris
David S. Rhone
Luther A. Riser
Herbert J. Rosenberg
A. B. Shoemaker
Frederick Snyder
Homer U. Todd
John E. Ziegler

Baltimore Medical College

Coleridge L. Beaven	Robert P. Reagan
William E. Brown	Ralph G. Reed
James L. Collard	Merrick A. V. Smith
James DePasquale	Jacob J. Steinfeld
Bernard Livingston	Scott J. Titus
William R. Marshall	Harry G. Tonkin
Otto G. Matheke	Benjamin Ulanski
Emmett A. Moore	William H. Walcott
Lloyd D. Mottram	Clarence C. Wiley
Harold H. Palmer	Herbert E. Wilkinson
Harry C. Podall	J. Leroy Wright

College of Physicians and Surgeons

Oscar T. Barber	John J. O'Malley
Allen E. Burner	William T. Owens
Maurice Chideckel	Ivan Emerson Pratt
Charles W. Cohn	Rush B. Stevens
Clyde W. Conn	Thomas W. Stevenson
George B. Davis	George A. Strauss
George P. Evans	Walter G. Stroble
George D. Johnson	Ernest E. Whipple
Anthony W. Lamy	Horace A. Whisler
Charles G. Morgan	Francis R. Wise
Albert E. Nolte	

DR. GOLDSTEIN APPOINTED GENERAL CHAIRMAN OF GREATER
UNIVERSITY OF MARYLAND FUND

Dr. Albert E. Goldstein, class of 1912 P & S, was recently nominated Chairman of the Greater University of Maryland Fund which began its activities in January to afford an opportunity for active participation by alumni in the strengthening of the University. From time to time the Bulletin will carry additional items concerning the development and plans of the Greater University of Maryland Fund.

NOTICE

The Medical Alumni Association is pleased to report that the Student Loan Fund announced in the October, 1957 Bulletin has attracted some attention as evidenced by both inquiries and substantial response. It is the sincere hope of the Board of Directors that every alumnus will give this meritorious enterprise the attention and support it deserves. Contributions either large or small are solicited and should be submitted direct to the Medical Alumni Association and marked "For Student Loan Fund".



DR. TRIPLETT HONORED

Dr. William H. Triplett, a member of the class of 1911, Baltimore Medical College and Executive Director of the Medical Alumni Association was honored by his friends and members of the faculty of the School of Medicine at a testimonial dinner held on Tuesday, February 11, 1958 at the L'Hirondelle Club in Ruxton, Maryland.

The toastmaster was Dr. Austin H. Wood who introduced Dr. Albert E. Goldstein, Chairman of the program committee. Major General Milton A. Reckord, Adjutant General of Maryland, spoke on Dr. Triplett as a soldier and Dr. Chares Reid Edwards, Professor of Surgery, spoke on his virtues as a physician. Dr. Harry M. Robinson, Jr., a life long friend of Dr. Triplett, spoke on Dr. Triplett the man. More than 100 friends attended the dinner.

ITEMS

Major William W. Bindeman, class of 1947, has recently been transferred to a post in Germany. He will become the professional advisor to the Surgeon of the 7th Army with headquarters at Stuttgart. His current post office address is Headquarters, 7th Army Medical Section, APO 46, New York.

Dr. Norman Levin, class of 1947, has announced the removal of his office from the Medical Arts Building to 825 Park Avenue, Baltimore 1 Maryland for the practice of obstetrics and gynecology.

Dr. Herbert Eichert, class of 1932, of Miami, Florida, has been elected one of three vice-presidents of the American College of Cardiology.

DR. ABRAHAM LILIENFELD APPOINTED TO HOPKINS POST

Named Director of the Division of Chronic Diseases in the School of Hygiene

Dr. Abraham G. Lilienfeld, class of 1944, has recently been appointed Professor of Public Health Administration in the Johns Hopkins University School of Hygiene and Public Health. Dr. Lilienfeld will succeed the late Dr. J. Earle Moore as the Director of the Division of Chronic Diseases. He will assume his appointment July 1, 1958.

A native of Baltimore, Dr. Lilienfeld graduated from the Johns Hopkins University in 1941 and after serving a rotating internship at the Lutheran Hospital of Maryland received his master's degree in Public Health at the Johns Hopkins University School of Hygiene in 1949. He was director of the southern health district of the Baltimore City Health Department from 1950 to 1952 and was an assistant professor of epidemiology in the School of Hygiene and was director of the School of National Gamma Globulin Evaluation Center from 1952 until he accepted an appointment as associate professor of medical statistics at the University of Buffalo School of Medicine.

Dr. Robert E. Bauer, class of 1946, and until recently assistant professor of medicine and active in the radio isotope laboratories of the University Hospital has recently moved to Miami Beach, Florida with offices at 1680 Meridian Avenue, Miami Beach 39 Florida for the practice of internal medicine, cardiology and radioactive isotopes. Dr. Bauer will be associated with Dr. Paul N. Unger.

Dr. Mortimer D. Abrashkin, class of 1932, has announced the removal of his offices to the Meridian Medical Center, 1680 Meridian Avenue, Miami Beach 39 Florida. Dr. Abrashkin limits his practice to orthopedic surgery, fractures and physical rehabilitation.

**NEW CONSTITUTION AND BY-LAWS PROPOSED FOR MEDICAL
ALUMNI ASSOCIATION**

Proposed new Constitution and By-laws Follows Explanation by
Committee Chairman

Not since 1936 has a revision of the Constitution and By-Laws of the Medical Alumni Association been effected. In order to keep the Association abreast with current developments in medicine and in the School of Medicine, President Long recently appointed a committee composed of Drs. J. Morris Reese, Harry M. Robinson, Jr. and William H. Triplett to consider revision of the Constitution and By-Laws and a proposal for adoption at the general meeting in June, 1958.

For your information, the Bulletin prints an introductory letter from the chairman of the committee.

Fellow Alumni:

The Constitution and By-Laws of the Medical Alumni Association of the University of Maryland have not been reviewed and revised since 1936. The changing times

have necessitated certain alterations in the Constitution and By-Laws to bring them up to date.

The President of the Medical Alumni Association appointed a committee to review and revise the present Constitution and By-Laws and to present its recommendations to the general membership for approval.

The following is the result of a compilation of suggested changes which has been advised by the committee and approved by the Board of Directors. This is to be presented for the approval of the general membership of the Medical Alumni Association at the general meeting in June, 1958.

Respectfully submitted

J. Morris Reese, M.D., Chairman

Harry M. Robinson, Jr., M.D.

William H. Triplett, M.D.

CONSTITUTION OF THE UNIVERSITY OF MARYLAND

We, the Alumni of the School of Medicine of the University of Maryland, (comprising graduates of the University of Maryland School of Medicine, the Baltimore Medical College, and the College of the Physicians and Surgeons of Baltimore City) desiring to perpetuate the associations made during the medical school period and of furthering interest and advancement of the University of Maryland School of Medicine do hereby adopt this constitution for the governing of the Medical Alumni Association.

ARTICLE I

NAME

This association shall be known as THE UNIVERSITY OF MARYLAND MEDICAL ALUMNI ASSOCIATION.

ARTICLE II

ALUMNI OFFICE

The office of the Medical Alumni Association shall be located on the second floor of the Medical School Building, or such other place on the Baltimore Campus as the Board of Directors may designate.

ARTICLE III

OFFICERS

The government of the Association shall be vested in the elective officers and Board of Directors.

ARTICLE IV

OFFICERS AND BOARD OF DIRECTORS

Section I. The officers of the Association shall be president, president-elect, three vice-presidents, secretary and treasurer.

Section II. The Board of Directors shall consist of nine members who shall be

elected by the membership and one additional, designated executive director, elected by the Board of Directors, provided that the Board of Directors may at its discretion dispense with the office of executive director.

ARTICLE V

AMENDMENTS

Amendments to the Constitution and By-Laws of the Medical Alumni Association may be proposed by any active member of the Association during the current year. These proposals are to be submitted to the Board of Directors in writing. The Board of Directors will review all such proposals and submit them to the Association for consideration at the next general meeting. Amendments may not be admitted to the Constitution and By-Laws until after approval by a two thirds majority vote of the members present.

ARTICLE VI

This Constitution and By-Laws of the University of Maryland Medical Alumni Association upon its approval by the Association will supersede all other such articles or amendments now in effect.

BY-LAWS

ARTICLE I

OFFICERS AND BOARD OF DIRECTORS

Section I.

- a. The officers of the Medical Alumni Association shall consist of president, president-elect, three vice-presidents, secretary and treasurer. These officers shall be elected at the annual meeting of the Medical Alumni Association, all of whom, excluding the three vice-presidents, to be selected from those members located in the area of Metropolitan Baltimore.
- b. In addition to the officers authorized by Section I a, hereof, nine members shall be elected who together with the said officers will comprise the Board of Directors.

Section II. The President. The president of the Medical Alumni Association shall be the chief executive officer of the Association and shall preside over all meetings of the Association and the Board of Directors. It will be the duty of the president to appoint the chairman and members of all committees except the nominating committee. When the president is absent the president-elect will preside.

Section III. The President-elect. The president-elect who must reside in the Metropolitan area of Baltimore, shall be elected at the time of the annual meeting of the Medical Alumni Association. It will be his duty to preside at all meetings of the Board of Directors when the president is absent. The president-elect will succeed the president in office. The president-elect will be a member of the Board of Directors.

Section IV. The Secretary. The secretary shall be elected annually. He is to keep minutes of the meetings of the Board of Directors and all general meetings of the Association. The secretary shall give each member of the Board of Directors due

notice of meetings of the Board and shall be responsible for the notification of the membership of all general meetings of the Association. The secretary will also have the responsibility of furnishing the editor of the Bulletin with items of interest relative to the members of the Association. The secretary will be a member of the Board of Directors. The secretary should annually check the membership roster to see that it is up to date and that records of deaths have been made and new members have been added.

Section V. The Treasurer. The treasurer shall be elected annually. He will become a member of the Board of Directors. It will be the duty of the treasurer to collect the dues annually, to pay all bills incurred by the Medical Alumni Association, and to render a financial statement at each meeting of the Board of Directors and at the annual meeting of the Medical Alumni Association. Both Secretary and Treasurer shall be co-signers of all checks.

Section VI. The Board of Directors. The Board of Directors shall consist of nine elected members who reside in the area of Metropolitan Baltimore. At each annual meeting, three directors shall be elected to serve a term of three years. No person shall be eligible for re-election to the Board of Directors after a service of a full term of three years until at least one year has elapsed since the time of such service.

- a. In addition to the three members of the Medical Alumni Association who are elected to the Board of Directors at each annual meeting, the retiring president shall also serve a period of two years on the Board.
- b. The Board of Directors shall have regular stated meetings throughout the entire year. Special meetings may be called at the discretion of any five members of the Board of Directors.
- c. The executive director of the Medical Alumni Association is to be elected annually by the Board of Directors. It will be his duty to carry out the directives issued by the Board of Directors. All major issues shall be submitted to the Board of Directors. He may request the president to call special meetings in order to render these decisions. He shall be an ex-officio member of all committees and a member of the Board of Directors. In his capacity as executive director of the Medical Alumni Association, all his actions shall be subject to review and final disposition by the Board of Directors.

ARTICLE II

NOMINATING COMMITTEE

Section I. The two immediate past presidents automatically become members of the nominating committee with the senior presiding as chairman.

Section II. Three additional members to the nominating committee are to be elected from the general membership from the floor at the time of the annual meeting. It will be the duty of the nominating committee to select names of members for the offices of president-elect, vice-presidents, secretary, treasurer, and of the Board of Directors. These nominations are to be submitted at the time of the annual meeting. Other nominations may be made from the floor.

Section III. The three members elected from the membership at large may not

succeed themselves as members of the nominating committee without an elapsed interval of five years.

ARTICLE III

MEMBERSHIP

Preamble

Membership in the Medical Alumni Association may be active, associate, emeritus and honorary.

Section I. Active membership. All graduates of the University of Maryland School of Medicine, the Baltimore Medical College, and the College of Physicians and Surgeons of Baltimore City are eligible for active membership in the Medical Alumni Association.

- a. These graduates who are physicians in good standing in their communities and who are not already active members may join the Medical Alumni Association by application. The application is to be approved by the Board of Directors. These alumni shall be declared active members and have voting privileges.
- b. Each member of the graduating class shall be automatically elected to the Medical Alumni Association.

Section II. Associate membership. Associate membership in the organization may be conferred on any member of the Faculty of the School of Medicine who did not graduate from the University of Maryland School of Medicine. Associate members will not be entitled to vote. Application for this type of membership shall be submitted to the Board of Directors in writing.

Section III. Emeritus membership. Emeritus membership is conferred on all active members of the Medical Alumni Association who have been graduated for fifty years. They receive the Bulletin but are no longer required to pay dues but retain their voting privilege.

Section IV. Honorary membership. The Board of Directors with the approval of the membership at large at any annual meeting may confer honorary membership on any member of the faculty or any distinguished member of the medical profession who may be deemed worthy of that honor.

ARTICLE IV

DUES

Section I. The annual dues shall be \$6.00. Three dollars of this amount to be applied as dues and \$3.00 to cover annual subscription to the Bulletin of the School of Medicine. Any individual whose dues are in arrears for two years shall be dropped from membership in the Medical Alumni Association. He may be reinstated at his request submitted in writing and the payment of his annual dues.

Section II. Each member of the graduating class of the University of Maryland School of Medicine shall, immediately upon graduation, be made an active member of the Medical Alumni Association with all rights and privileges and without payment of dues for his first year. Thereafter, he shall be charged \$3.00 per year (to cover the

cost of the Bulletin) for the next three years. After this the dues shall be \$6.00 each year as provided in Section I.

ARTICLE V

LOAN FUND

Section I. There shall be a Student Loan Fund Committee appointed by the president of the Medical Alumni Association with the approval of the Board of Directors.

- a. This committee shall have the responsibility, with the approval of the Board, of issuing loans to qualified students after proper investigation and approval
- b. It will be the responsibility of this committee to establish its own rules and regulations, with the approval of the Board, for the administration of this fund.

Section II. The Student Loan Fund will remain within the custody of the treasurer of the Medical Alumni Association.

ARTICLE VI

AMENDMENTS

Amendments to the Constitution and By-Laws of the Medical Alumni Association may be proposed by any active member of the Association during the current year. These proposals are to be submitted to the Board of Directors in writing. The Board of Directors will review all such proposals and submit them to the Association for consideration at the next general meeting. Amendments may not be admitted to the Constitution and By-Laws until after approval by a two thirds majority vote of the members present.

ARTICLE VII

This Constitution and By-Laws of the University of Maryland Medical Alumni Association upon its approval by the Association will supercede all other such articles or amendments now in effect.

NEW JERSEY ALUMNI NOTE

Dr. Joseph Nataro Heads Committee to Sponsor Reunion on Occasion of
Annual Meeting of New Jersey State Medical Society

A Dutch Treat cocktail party for alumni of the School of Medicine is being planned for Tuesday, May 20th from 5.30 to 6.30 p.m. in the Tower Room, Haddon Hall during the annual meeting of the New Jersey State Medical Society to be held in Atlantic City on May 17-21, 1958. Details may be secured by writing Dr. Joseph Nataro, 172 Littleton Avenue, Newark 3, New Jersey. Notices of this affair will be sent to all known alumni residing in the State of New Jersey, and there will also be adequate notice posted at the time of the annual meeting.

Such reunions of graduates of the School of Medicine have become more numerous in recent years at both the State and National meetings, largely because of the interest and attention of alumni living in the regions where the conventions are taking place.

UNIVERSITY OF MARYLAND BIOLOGICAL SOCIETY

OFFICERS OF THE SOCIETY

JOHN I. WHITE, *President*
School of Medicine
Baltimore, Maryland

EDWARD B. TRUITT, JR., *Secretary*
School of Medicine
Baltimore, Maryland

DONALD E. SHAY, *Treasurer*
School of Pharmacy
Baltimore, Maryland

COUNCILORS

F. P. FERGUSON
E. J. HERBST

R. M. N. CROSBY
R. M. BURGISON

BULLETIN CORRESPONDENT

VERNON E. KRAHL

PROCEEDINGS OF THE UNIVERSITY OF MARYLAND BIOLOGICAL SOCIETY

October 23, 1957. Program Meeting. Bressler library. A paper entitled "The Uses of Exfoliative Cytology in Evaluating Human Host Response to Steroid Hormones" was presented by Dr. John K. Frost, Assoc. Prof. of Pathology, University of Maryland School of Medicine, and Asst. Prof. of Gynecology, Johns Hopkins Hospital, Baltimore, Md.

November 26, 1957. Annual Business Meeting. Bressler Library. Officers elected at this meeting were John I. White, President, Edward B. Truitt, Jr., Secretary, Donald E. Shay, Treasurer and Raymond M. Burgison, Councilor.

The following candidates for membership in the Society were elected.

Elected to Ordinary Membership

Dr. G. G. Rudolph,
Assoc. Prof., Biol. Chem.
School of Medicine

Mr. C. L. Huang
Asst. in Chemistry
School of Pharmacy

Dr. A. J. Emery, Jr.
Asst. Prof., Biol. Chem.
School of Medicine

Dr. D. Frank Kaltreider,
Prof. of Obst. & Gyn.
School of Medicine

Dr. Johnson S. L. Ling,
Res. Assoc. in Pharmacol
School of Medicine

Mr. C. R. Tamorria,
Asst. in Chem.
School of Pharmacy
Miss Sylvia Himmelfarb,
Instr. in Physiology
School of Medicine

Mrs. Jeanne Q. Barry,
Jr. Instr. in Physiol.
School of Medicine.

Dr. Burton R. Pollack,
Asst. Prof. of Physiol.
School of Dentistry.

Mrs. Leah P. Staling,
Research Asst. in Physiol.
School of Dentistry.

Elected to Associate Membership

Mr. C. S. Kumkumian
Instr. in Chemistry,
School of Pharmacy.

Mr. R. E. Havranek
Grad. Asst. in Chem.,
School of Pharmacy.

Mr. P. Ragozzino
Grad. Asst. in Pharmacol.
School of Pharmacy.

Mrs. D. W. McConnell
Res. Asst. in Physiol.,
School of Medicine.

Following the Business Meeting, a paper entitled "Indoklon—A New Pharmacconvulsive Agent; Pharmacological and Clinical Aspects" was presented by Dr. Edward B. Truitt, Jr., Dr. Alfred S. C. Ling, Dr. Albert A. Kurland and Dr. John C. Krantz, Jr., of the Department of Pharmacology, University of Maryland School of Medicine, and Spring Grove State Hospital. (See Abstract).

December 11, 1957. Program Meeting. Bressler Library. A paper entitled "The Metabolism of Insect Flight Muscle" was presented by Dr. Bertram Sacktor, Entomology Branch, Directorate of Medical Research, Army Chemical Center, Maryland.

January 29, 1958. Program Meeting. Bressler 2, Lecture Hall. The program consisted of a series of reports on Research at the Psychiatric Institute. Dr. Jacob E. Fine-singer, Professor of Psychiatry served as Moderator.

1. "Studies on the Acquisition of Clinical Skills by Medical Students" by Dr. Benjamin Pope, Assistant Professor of Medical Psychology. (See Abstract)

2. "The Focus of Attention" by Dr. Enoch Callaway III., Assistant Professor of Psychiatry. (See Abstract)

3. "Investigations in the Biology of Mental Health and Disease" by Dr. Robert G. Grenell, Professor of Psychiatric Research. (See Abstract)

February 11, 1958. Program Meeting. Bressler Library. A paper entitled "Experimental Wound Healing: Modification with Adenine Nucleotides." was presented by Dr. Beverly Reynolds, Assistant Resident in Surgery and Dr. John B. Codington, Resident in Surgery. (See Abstract).

ABSTRACTS

Indoklon—A New Pharmacconvulsive Agent: Pharmacological and Clinical Aspects. by Dr. Edward B. Truitt, Jr., Dr. Alfred S. C. Ling, Dr. Albert A. Kurland and Dr. John C. Krantz, Jr. Presented November 26, 1957

Indoklon (hexafluorodiethyl ether) is a volatile, non-inflammable, colorless liquid with a mildly pleasant ethereal odor. Inhalation of its vapors rapidly produces clonic contractions followed by a full grand mal-like seizure with tonic extensor rigidity and a cessation of respiration which automatically terminates the intake of the drug. The tonic phase is followed by a second clonic phase and respiration resumes during or immediately after this time. Indoklon convulsions are effected in many species of laboratory animals and have been applied to over 50 patients in over 1000 treatments as a substitute for electroshock therapy for standard indications. The convulsant action of Indoklon is antagonized by barbiturate, ether and Fluoromar anesthesia and by Tridione. It is facilitated by reserpine and chlorpromazine in large doses.

Studies on the mechanism of action suggest that Indoklon is a stimulant to subcortical centers similar to Metrazol. A film illustrating animal and clinical application of the drug was shown.

Research at the Psychiatric Institute

Presented on January 29, 1958

"Studies on the Acquisition of Clinical Skills by Medical Students" by Dr. Benjamin Pope, Assistant Professor of Medical Psychology.

The staff psychologists at the Psychiatric Institute are engaged in a number of coordinated investigations that focus on attitude changes and the development of clinical skills in students during the course of their four years of medical training. One such study deals with differences in verbal interview operations of interviewers at various levels of proficiency and training. A number of scales are being developed for classifying and scaling verbal responses of both interviewers and patients. Initially these will be applied to the analysis of recorded interviews of fourth year medical students and experienced psychiatrists. The findings of the initial study will then provide the context for further studies dealing with the teaching of interviewing to medical students.

"The Focus of Attention" by Dr. Enoch Callaway, III, Assistant Professor of Psychiatry.

Drugs that stimulate the brain stem reticular formation (e.g. nerve gas, amyl nitrite, methamphetamine) reduce responsiveness to peripheral stimuli (i.e. they narrow attention). Atropine depresses the reticular formation and it increases responsiveness to peripheral stimuli (i.e. it broadens attention). In other words, if responsiveness to stimuli lying outside the central focus of attention indicates the broadness of attention, then drug-induced increase in the activity of the reticular formation is correlated with narrowing of attention.

"Investigation in the Biology of Mental Health and Disease" by Dr. Robert G. Grenell, Associate Professor of Psychiatric Research.

Without becoming involved in the perennial mind-body dichotomy, it can be postulated that one approach to the problems of "normal" and "abnormal" behavior rests on knowledge of how nerve cells respond to stimuli. Such data must be obtained on the single cell as well as on groups of interacting cells, and must relate primarily to two sets of structures and mechanisms.

The first area of interest is localized at the cell surface (and the surface of subcellular particles). It is here that molecules of all kinds make their first contact with the neuron. Further, it is through this "physiologic membrane" that substrates, electrolytes and other substances penetrate into and leave the cell or are exchanged with other molecules in the extra-neuronal environment. In the brain this problem is of special importance by nature of its role in selectivity or specificity of action of particular substances and particular cell groups having different metabolic characteristics.

The second group of problems centers about the mechanisms involved in the intra-

cellular reactions which occur in the course of their functional activity and are associated with (and certainly in part dependent upon) the membrane characteristics. It is these steady-state mechanisms and their changes under a variety of conditions which are of importance.

In the light of these two interrelated sets of problems, a number of studies are being carried out relative to stresses of various kinds, drug action, specificity in the brain, differential mechanisms concerned in the response of the organism to afferent input, chemical mapping of the brain and whenever possible to chemical and physiologic concomitants of behavior patterns. Throughout such studies it is understood that several levels of language are involved and results are interpreted carefully to avoid the pitfalls of invalid reductionism.

"Experimental Wound Healing: Modification with Adenine Nucleotides". by Dr. Beverly Reynolds, Assistant Resident in Surgery, and Dr. John B. Codington, Resident in Surgery, University Hospital, Baltimore, Md. Presented on February 11, 1958.

A study has been made of the effects of the cellular substrate adenosine 5-monophosphate upon the process of repair as represented by texture of a synthesis of chemical elements in healing wounds.

Three hundred young albino rats were subjected to protein depleted diets, steroid stimulation by exogenous cortisone acetate, and optimum dietary conditions. Circular wounds were established and the course of healing followed by chemical determination collagen, hexosamine, tyrosin, and total protein in the coagulum and its periphery, including non-wounded tissue. Fixed sections with connective tissue stains afforded histologic correlation.

Intramuscular adenosine 5-monophosphate (A5MP) administered to sample animals in each group before and/or after wounding diminished wound healing retardation. Diversity in collagen production and hexosamine accumulation are related to cellular kinetics, in which aerobic reaction sequences are stimulated by A5MP. Sequential elevations of adenosine triphosphate (ATP) provide earlier post wounding expenditure of labile energy tending to decrease the lag interval in repair.

POSTGRADUATE COMMITTEE SECTION

POSTGRADUATE COMMITTEE, SCHOOL OF MEDICINE

HOWARD M. BUBERT, M.D., *Chairman and Director*

Elizabeth B. Carroll, *Executive Secretary*

Post Graduate Office: Room 201

Old Medical Building, Lombard and Greene Streets

Baltimore 1, Maryland

THE CARIBBEAN CRUISE

The Postgraduate Committee sponsored a medical seminar cruise to the Caribbean early in December, 1957. While other medical schools have conducted like cruises, this was Maryland's first, and it is most gratifying to be able to report that it was quite a success. Doctors from many states other than Maryland were among the passengers, and we continue to receive letters of praise from them about the cruise in general and our medical program in particular. We believe it is worthy of note that one of the passengers was Dr. James Leland Anderson of Greenville, South Carolina who was graduated in medicine from Maryland fifty years ago. If you were not among those who took advantage of this most pleasant combination of vacation and "professional business" we hope you will not make the same mistake next time.

BASIC SCIENCES

The course, BASIC SCIENCES AS THEY APPLY TO THE PRACTICE OF MEDICINE began on January 8 with an enrollment of 47 students. Classes will be held in Chemical Hall every Wednesday afternoon from 4:00 to 6:00 P.M. until May 28, 1958.

CLINICAL ANATOMY

The CLINICAL ANATOMY course, formerly known as Surgical Anatomy, which began on January 27 continues to be popular. Enrollment, however, in this course is necessarily limited. Classes will be held every Monday afternoon from 2:00 until 5:00 P.M. and on Wednesdays from 8:30 until 11:30 A.M.

TV-MD

TV-MD, the University's public service program winds up its seventh year of continuous telecasting this spring. The current year's presentations have continued in the tradition of presenting medical and dental subjects in a manner designed to inform the lay viewing audience. Many favorable comments via telephone and in writing are received after each telecast.

The Postgraduate Committee wishes to express its sincere thanks to all those physicians who have put so much time and effort into the preparation and presentation of the telecasts; to their staffs who have assisted, and to Mr. Morrison, Mr.

Coates and their crews who have cooperated so admirably in transporting heavy equipment from the hospital and medical school to the television studios.

CALENDAR OF EVENTS

The weekly publication of the Postgraduate Committee, CALENDAR OF EVENTS, is intended to keep you abreast of medical activities on the campus. You can help us make it accurate and complete by sending us all items of interest to the medical profession which are planned by your department. It is necessary, however, that we have all data not later than noon on Monday preceding the Monday of publication. Send items to the Postgraduate Committee office, Room 201 Old Medical Building, or phone extension 259.

The circulation of THE CALENDAR has grown from 125 to 365 on request. We ask that you advise us if this publication is not of service to you so that your name may be removed from our mailing list.



Obituaries



Dr. Harry F. Byrnes

Dr. Harry Francis Byrnes, class of 1904, B.M.C., recently died at the Mercy Hospital in Springfield, Massachusetts.

A native of Worcester, Massachusetts, he was educated in the public schools of that city and later graduated from the Baltimore Medical College.

Following his graduation, he studied at the Royal Ophthalmic Hospital in London and at the University of Vienna, returning to Westfield, Massachusetts where he practiced otolaryngology.

Dr. Byrnes was a member of the American College of Surgeons, the Massachusetts Medical Society, the American Ophthalmology and Otolaryngology Society, the Springfield Medical Association, the American Medical Association, the New England Ophthalmological Society, the American Board of Otolaryngology and the Colony Club of Springfield, Massachusetts.

For a period during World War I, Dr. Byrnes served in the Medical Corps of the United States Army.

Block, William Henry, New Orleans, La.; class of 1895; aged 83; served during the Spanish-American War; died, August 28, 1957, of bronchopneumonia.

Champe, Ira P. Jr., Charleston, W. Va.; class of 1922; aged 61; died, November 1, 1957, of heart disease.

Cockrell, Loren Eugene, Kinsale, Va.; class of 1895; aged 87; died, November 15, 1957, of cerebral hemorrhage.

Custer, Charles Cleveland, Pittsburgh, Pa.; B.M.C., class of 1909; aged 71; died, September 28, 1957, of myocardial infarction.

D'Angelo, Bendetto F., Franklin Square, N.Y.; class of 1914; aged 70; died, September 11, 1957, of multiple myeloma and plasmacytoma.

Dees, Ralph E., Greensboro, N.C.; class of 1906; aged 76; served during World War I; died, November 19, 1957, of pneumonia.

Deutschmann, David, New York, N.Y.; class of 1911; aged 72; died, October 20, 1957.

Donohue, James J., Norwich, Conn.; P & S, class of 1896; aged 84; died, September 27, 1957, of uremia and chronic nephritis.

Erwin, Harlan Lamar, Dalton, Ga.; class of 1904; aged 81; died, October 16, 1957, of coronary thrombosis.

Finney, Roy Pelham, Spartansburg, S.C.; class of 1920; aged 59; died, September 6, 1957.

Frehling, Joseph Morris, Louisville, Ky.; class of 1924; aged 56; served during World War II; died, November 1, 1957, of a heart attack.

Glatfelter, Harvey E., Central City, Neb.; class of 1891; aged 88; died, August 26, 1957, of arteriosclerotic heart disease.

Halferty, Homer E., Pittsburgh, Pa.; P & S, 1914; aged 68; died, November 17, 1957, of uremia.

Harden, Albert Scott, Newark, N.J.; class of 1901; aged 76; served during World War I; died, November 22, 1957.

Harper, William Glen, Elkins, W. Va.; P & S, class of 1910; served during World War I; aged 69; died, August 27, 1957, of ruptured aneurysm of the abdominal aorta.

Harris, Aaron, Baltimore, Md.; class of 1935; aged 46; served during World War II; died, July 14, 1957, of heart disease.

Hoke, Clarence Calvin, Tulsa, Okla.; class of 1914; aged 71; served during World War I; died, August 11, 1957, of hypertension and heart failure.

Jumper, Carl E., El Paso, Tex.; B.M.C., class of 1904; aged 79; died, November 25, 1957, of coronary occlusion.

King, Marion Norwood, Norfolk, Va.; class of 1899; aged 82; served during World War I; died, September 8, 1957, of hemorrhage resulting from arteriosclerosis.

Lowrey, John McPherson, Baltimore, Md.; P & S, class of 1897; served during World War I; aged 83; died, August 17, 1958, of bronchopneumonia and arteriosclerosis.

Lowry, Stanley T., San Antonio, Texas; P & S class of 1901; died, October 7, 1957, of carcinoma of the ureter.

McManus, James Patrick, Fort Lauderdale, Fla.; P & S, class of 1914; aged 70; died, November 13, 1957, of coronary occlusion.

Rascoff, Henry, Brooklyn, N.Y.; class of 1928; aged 55; died, October 6, 1957, of cancer.

Reynolds, Roy Rex, Massillon, O.; class of 1919; aged 64; served during World War I; died, August 11, 1957, of arteriosclerotic heart disease with congestive failure.

Sawabini, Elias J. B., Brookline, Mass.; P & S, class of 1898; aged 84; died, September 6, 1957, of acute myocardial infarction because of coronary thrombosis.

Schoenrich, Herbert, Baltimore, Md.; class of 1907; aged 74; died, August 21, 1957.

Shirley, R. V., Ceredo, W. Va.; P & S, class of 1890; aged 91; died, October 1, 1957

Smith, Leroy Henry, Winterport, Me.; class of 1917; aged 65; died, November 26, 1957, of coronary occlusion.

Smith, Paul B. H., Tyler, Tex.; class of 1906; aged 79; died, October 1, 1957

Spaeder, Philip J., Philipsburg, Pa.; B.M.C., class of 1907; aged 77; died, September 22, 1957, of acute myocarditis.

Snyder, Samuel, Baltimore, Md.; class of 1916; aged 68; died, September 8, 1957, of coronary occlusion.

Wade, John Hubert, Boonsboro, Md.; class of 1895; aged 84; died, September 21, 1957, of pneumonia.





MEDICAL SCHOOL SECTION



DEAN'S LETTER

Dear Members of the Alumni and Friends of the School of Medicine:

The 1957-58 school year can be marked as one in which a number of events occurred, important to the School of Medicine. In the development of the School, it is difficult to assess the importance and far reaching effects to be expected to eventuate from some of these events, but it is safe to say they should profoundly influence the future of the Medical School.

As you know, the University and the Board of Regents have been working on a redevelopment plan for the Baltimore campus. This plan became a reality when the legislature appropriated, during the 1958 session, one million dollars to initiate the project, with the expectation that additional money would be appropriated each year until approximately nine city blocks of property are added to the Baltimore campus. This should give adequate space to develop the professional schools. The State money appropriated will, of course, be matched with Federal redevelopment money. This means that the initial steps required for a ten-year plan are now underway.

The legislature appropriated planning money for the new Out-Patient Building. This will be a building approximately as large as University Hospital with 300,000-400,000 square feet of floor space. It will house both public and private patient clinics and will provide servicing facilities in the way of medical records, clinical laboratories, radiation therapy, pharmacy, a physical medicine department, faculty offices and house officer quarters that are not provided in the University Hospital.

We are now working with the architect and the University on the plans. It is expected that construction money will be requested in 1959, and the building will be occupied in 1962.

Construction has started on both the Medical Library and the Union Building. A number of delays have been encountered on these buildings, but they should be ready for occupancy within one year.

Funds were obtained from the legislature for installing an additional elevator in University Hospital, the completion of the renovation and remodeling of the operating rooms and the conversion of 26 beds for Neuro-Surgery.

The Hill-Burton project on the new additions to Radiology, Obstetrics and a new Central Sterile Supply and Premature Nursery for the University Hospital are complete. The renovation of the old obstetrical area to new operating rooms and the creation of a new recovery room are in progress.

A Medical Service Plan has been adopted by the University insuring reasonable medical school salary standards for the faculty. This will decrease many administrative problems and be a stabilizing influence in maintaining an outstanding faculty in the School of Medicine.

I regret to report that the Director of University Hospital, Dr. Clifford G. Blitch, has decided to leave the University because of family problems in Florida. He has done an outstanding job in the development of University Hospital during a very difficult period. He will be greatly missed, both because of the fine way he has administered the University Hospital and because of the friendly atmosphere he has created. I am sure that there are a host of friends in Baltimore that wish him well in his new endeavors in Florida.

Dr. Blitch will be succeeded by Mr. Ladislaus F. Grapski, a very able hospital administrator who for the last 8 years has been the Deputy Hospital Administrator of the Johns Hopkins Hospital. Mr. Grapski has an outstanding record as hospital administrator, not only at Johns Hopkins, but in a number of other leading hospitals in the United States. We welcome Mr. Grapski to the University family, and look forward to the opportunity to work with him in developing medical education and medical service in Maryland.

Sincerely,

WILLIAM S. STONE, M.D.
Dean

MR. LADISLAUS F. GRAPSKI APPOINTED DIRECTOR OF UNIVERSITY HOSPITAL



MR. LADISLAUS F. GRAPSKI

Mr. Ladislaus F. Grapski, until recently Associate Director and Assistant Secretary to the Board of Trustees of the Johns Hopkins Hospital, assumed the duties of Director of the University Hospital on July 1, 1958. Mr. Grapski has succeeded Dr. Clifford G. Blitch who entered private practice in Florida. Dr. Blitch served as Director of the University Hospital since 1954.

In making the announcement of Mr. Grapski's appointment, Dr. Wilson H. Elkins paid a compliment and tribute to the effective service and devotion of Dr. Blitch to his position and at the same time he welcomed to the staff of the School of Medicine an outstanding administrator which in Mr. Grapski would express the full confidence in that he would provide the kind of effective leadership enabling the hospital, as a teaching hospital associated

with the Medical School, to continue to advance its prestige in the field of medical education and services to the public. Dr. William S. Stone, Dean, commented that Mr. Grapski "would not only be responsible for the administration of the hospital but also for supporting the hospital's educational programs in medicine, nursing health ancillary sciences such as physical therapy and medical technology."

The new Administrator is a graduate of the University of Chicago, the University of Denver and the Mills School of Nursing in New York City. Between 1938 and 1941 he was the Director of St. Elizabeth's Hospital in Lincoln, Nebraska, the University of Colorado School of Medicine and St. Joseph's Hospital in Denver.

Prior to entering military service in 1944 he served as Assistant Personnel Officer at the Billings General Hospital in Indianapolis, Indiana. Later he was Adjutant to the 111th General Hospital in the European Theatre of Operations. From 1945 to 1946 he was Commanding Officer of Detachment of Patients and Assistant Registrar at the Fitzsimmons General Hospital. Upon separation from the military service he was appointed to the Halifax District Hospitals as Administrator. Later he was named Director of Loyola University Hospital and served as Assistant Dean at the Stritch School of Medicine, a position he held from 1947 until his appointment to the Johns Hopkins Hospital in 1951. Mr. Grapski is a Fellow of the American College of Hospital Administrators, a member of the American Hospitals, the American Public Health Association and the American Management Association.

FACULTY ORGANIZES HENRY F. ULLRICH EDUCATIONAL FUND

In memory of the late Dr. Henry F. Ullrich, Associate Professor of Orthopedic Surgery, members of the Faculty have organized an Educational Fund which will be used for the support of guest lectureships in surgery and for the general support of medical education in the University of Maryland.

The committee is composed of the following: Dr. William S. Stone, Dean, Dr. Robert W. Buxton, Professor of Surgery, Dr. Allen F. Voshell, Professor of Orthopedic Surgery, Dr. George O. Eaton, Dr. James P. Miller, Assistant Professor of Orthopedic Surgery, Dr. John E. Carroll, Jr., Dr. George H. Yeager, Professor of Clinical Surgery, and Dr. Harry C. Hull, Professor of Clinical Surgery, Treasurer.

Contributions to the Fund should be made payable to the Henry F. Ullrich Educational Fund, University Hospital, Room 820, Baltimore 1, Maryland, and should be forwarded to Dr. Harry C. Hull, Treasurer.

DEPARTMENT OF MICROBIOLOGY

Dr. Charles L. Wisseman, Jr., Chairman of the Department, has announced the appointment of Dr. William F. Myers as Instructor in Microbiology. Dr. Myers comes to the School of Medicine from the University of Kansas where he has been engaged in a study of rickettsial metabolism.

Members of the department presented numerous papers during the past year at various national and local meetings.

Dr. Benjamin H. Sweet and **Dr. Charles L. Wisseman, Jr.** presented a paper entitled "Cross-Immunity among group B arthropod-borne (Arbor) viruses; Broadened neutralizing antibody spectrum induced by 17-D yellow fever vaccine in human subjects previously infected with Japanese encephalitis." This was presented before the American Society of Tropical Medicine and Hygiene in Philadelphia during November, 1957.

Dr. Wisseman and **Dr. John R. Gauld** presented a paper entitled "Phagocytosis and Opsonization of Typhus Rickettsiae" at the meeting of the American Society of Tropical Medicine and Hygiene in October, 1957.

Dr. Andrew G. Smith presented before the Maryland Branch of the Association of American Bacteriologists a paper entitled "The Use of Gelatin in the Demonstration of Bacterial Capsules."

Drs. Sweet and Wisseman appeared before the University of Maryland Biological Society in April, 1958, presenting a paper entitled "Practical Application of Immunological Relationships among the Group B Arbor Viruses (arthropod borne)."

Dr. Sheldon E. Greisman and **Dr. Charles L. Wisseman, Jr.** presented a paper entitled "The Action of Rickettsial Toxin and Bacterial Endotoxin on the Peripheral Vascular System" at the Regional Meeting of the American College of Physicians in November, 1957.

Dr. Wisseman attended the Ninth Pacific Science Congress held in Bangkok, Thailand, during November, 1957. He read a paper entitled "Broadened Neutralizing Antibody Spectrum Induced by 17-D Yellow Fever Vaccine in Human Subjects Previously Infected with Japanese B Encephalitis Virus." He also consulted with colleagues from Thailand, Japan and Malaya about future field studies on cross-immunity among arthropod-borne virus diseases.

In the fall of 1957, the Department of Microbiology sponsored a symposium on current Research on Rickettsiae in which interested groups from the National Institutes of Health, Walter Reed Army Institute of Research and the University of Maryland participated.

The department has been awarded a five-year grant from the National Institutes of Health for training in the field of rickettsial infections, thus significantly bolstering the existing active research program on rickettsiae and other intracellular parasites which constitute an area of particular interest in this department. The grant will provide support for three student fellows during the summer and for three graduate students who will begin their course of study in the fall.

Work carried out jointly by **Drs. Sweet and Wisseman** in both the laboratory and in volunteers locally and abroad continues on the problem of a practical immunizing regimen for dengue fever and infections by related viruses. This work, carried out under the auspices of the Commission on Immunization of the

Armed Forces Epidemiological Board, is supported by the Research and Development Division of the Office of the Surgeon General, Department of the Army.

Dr. Andrew G. Smith is currently engaged in studies concerning the capsules of bacteria. This work is being done in collaboration with the Department of Pharmacology on a chemotherapy of experimental fungus infections.

Dr. Sheldon E. Greisman has collaborated with Dr. Wisseman in studies on the cardiovascular effects of rickettsial toxins in white rats.

Dr. Grange Coffin of the Department of Pediatrics has assisted in studies on the antibacterial factors in human placentas in the departmental laboratories.

The Department of Microbiology plans to initiate the new combined Doctor of Philosophy-Doctor of Medicine program in the summer of 1958 with two candidates being nominated from the present sophomore class.

New physical facilities include a new animal room, a new virus research laboratory for the department and other facilities recently completed on the fifth floor of the Bressler Building. The laboratory and animal room, which are being equipped as rapidly as possible, are already being used for a part of the studies on viral immunization mentioned above. While the new laboratory alleviates some of the serious and increasing crowding that has existed in the department, it is anticipated that all available space will be fully occupied by the end of this calendar year.

DR. WISSEMAN APPOINTED TO NATIONAL BOARD

Dr. Charles L. Wisseman, Jr., has been appointed Chairman of the Bacteriology Test Committee of the National Board of Medical Examiners to serve in this capacity for the next two years. He has also been appointed Deputy Director of the Commission on Rickettsial Diseases of the Armed Forces Epidemiological Board.

UHLENHUTH COMMITTEE ORGANIZED TO HONOR NOTED TEACHER, ANATOMIST AND AUTHOR

***Committee Undertakes Plan to Perpetuate Anatomic Collection
and to Seek Funds for Dr. Uhlenhuth's Portrait***

Early in 1958 a Committee of the Faculty of the School of Medicine founded the Uhlenhuth Committee.

A statement issued by Dr. Frank H. J. Figge, Chairman, said in part: "All of you will remember Dr. Eduard Uhlenhuth even though you may have forgotten some of the anatomy you once knew. He retired from the Chair of Anatomy in 1955 at the age of 70. At this time he was appointed Bressler Research Professor of Anatomy to work on the second edition of his book, *The Anatomy of the Pelvis*. Dr. Uhlenhuth experienced a slight heart attack in 1957 and withstood the sad loss of his beloved wife last fall. However, he is now back at work and is as active and enthusiastic as ever. Many of us feel that he had such a profound influence



EDUARD UHLENHUTH, PH.D.

ANATOMIST

University of Maryland

School of Medicine

1925 - 1955

on the faculty and alumni of the University of Maryland School of Medicine that it would be appropriate for us to honor him. The purpose of this letter is to invite you to participate in creating a fund to have Dr. Uhlenhuth's portrait painted and presented to the University. We anticipate, and hope, that so many will wish to contribute to the fund that this will be oversubscribed. If so, a part of the money will be used for other worthy causes that will contribute to his pleasure and continued activity here in the Medical School.

"As many of you know, Dr. Uhlenhuth has a great love for old and rare anatomic books and has devoted much of his time and energy to building up a very creditable collection. This is now in the possession of the Anatomy Department and we are becoming increasingly proud of it. Many of the books in this collection were obtained only because of generous contributions from some of you (see Bull.Sch. of Med., U. of Md., 1956; 41:i-xi). Money contributed in excess of that needed for a portrait will be used to establish a fund for Dr. Uhlenhuth to draw on to continue the collection of anatomic books of historic value. This will be called 'The Uhlenhuth Collection of Medical and Anatomical Classics' and will belong to the library of the Anatomy Department of the School of Medicine.

"A part of the money will also be used to support Dr. Uhlenhuth's research program."

Continuing, Dr. Figge, in a letter mailed to alumni, said in part: "Because we have many multiple objectives, we are not making any suggestions regarding the amount of your contribution. It should be entirely voluntary and an indication of your true feelings and ability to contribute to such a fund."

In conclusion, Dr. Figge invited alumni and friends of Dr. Uhlenhuth to send him letters of testimony which will be bound and presented to him in June of this year. Dr. Figge also announced that a picture of Dr. Uhlenhuth has been prepared. A copy of it is printed herewith. A photographic enlargement, 8x10 size, is available to any interested alumni and may be obtained by writing directly to the Uhlenhuth Committee, c/o Dr. Frank H. J. Figge, Chairman.

The Committee consists of the following:

Glenn H. Algire, M.D. (deceased)	H. Patterson Mack, M.D.
Otto C. Brantigan, M.D.	Karl F. Meeh, M.D.
Monte Edwards, M.R.C.S. and L.R.C.P.	Frank K. Morris, M.D.
Albert E. Goldstein, M.D.	Harry M. Robinson, Jr., M.D.
Vernon E. Krah, Ph.D.	William H. Triplett, M.D.
John C. Krantz, Jr., Ph.D.	John A. Wagner, M.D.
William S. Stone, M.D., Dean	

DEPARTMENT OF PEDIATRICS

Dr. Grange Coffin, Instructor in Pediatrics, has begun a project to study the mechanisms and the therapeutic management of enuresis. **Dr. Ruth Baldwin** has started work involving medical problems of mental retardation.

Dr. Martin J. Gorten heads a research project concerning platelet counts and platelet abnormalities in premature infants. One of the unusual features of this project is that it is a cooperative undertaking between the staff of the Sinai Hospital, the Harriet Lane premature nursery and the Baltimore City Hospitals premature nursery. This enables the project to expand its study virtually across the entire premature pattern in the City of Baltimore. Another of Dr. Gorten's research activities is a study of infant Ferro-kinetics. Dr. Gorten is also beginning additional studies on hyperbilirubinemia in full-term infants and comparing the observations with similar studies in the premature child.

Dr. Samuel Bessman, Associate Professor of Pediatrics, has also been working with Dr. Gorten in a study of ammonia metabolism in icteric erythroblastotic infants. The purpose of this study is to expand knowledge in the intricate metabolic mechanisms that may play a role in the development of kernicterus, the abnormal pigmentation in the basal ganglia and other nuclei in the brain.

Other activities of the department concern the establishment of refined criteria for exchange transfusion therapy in erythroblastosis.

DR. HENRY F. ULLRICH DIES



DR. HENRY F. ULLRICH

Doctor Henry Franz Ullrich was born in Baltimore, November 17, 1903. He died of malignancy on March 24, 1958, at the age of 54 years. After graduating from the "A" Course at the Baltimore Polytechnic Institute, he entered the Johns Hopkins University where he obtained his pre-medical education. He received the degree of Doctor of Medicine in 1929 from the School of Medicine of the University of Maryland. From 1929 to 1931 he was an interne and an assistant resident in surgery at the University Hospital. The New York Orthopaedic Hospital was Doctor Ullrich's choice for continued preparation, and he was interne, resident and fellow in orthopaedic surgery there from 1931 to 1936 when he was awarded the degree of Doctor of Science in Medicine by Columbia University, College of Physicians and Surgeons. After

seven years of training, he opened his office in Baltimore for the practice of orthopaedic surgery. In 1940 he became a diplomate of the American Board of Orthopaedic Surgery.

In 1942 Doctor Ullrich went to Australia with the 42nd General Hospital, first as chief of the orthopaedic section, and subsequently as chief of surgery. He

later served in the Philippines. Upon his return to this country he was a colonel in the Medical Corps of the Army of the United States, and was chief of the orthopaedic section at the Woodrow Wilson General Hospital, Staunton, Virginia. After the war he became a member of the Society of Medical Consultants to the Armed Forces.

Among the many societies of which Doctor Ullrich was a member were: The American Orthopaedic Association; The American Academy of Orthopaedic Surgeons; The Interurban Orthopaedic Society; The Association of Bone and Joint Surgeons; and he was a charter member of the Beta of Maryland Chapter of Alpha Omega Alpha, honor medical society.

Doctor Ullrich was a governor of the American College of Surgeons; and, since 1954, he had been President of the Board of Trustees of the Maryland Medical Service, Inc., the "Blue Shield" of Maryland. He was a member of the staff of twelve Baltimore Hospitals, and clinical professor of orthopaedic surgery in the School of Medicine of the University of Maryland. He was also a Trustee of the Endowment Fund of the school from which he graduated.

Doctor Ullrich was a member of St. David's Episcopal Church; and was a Thirty-second Degree Mason. He also was a member of the Gibson Island and University Clubs.

His immediate family was the joy of his life. His wife, Mrs. Elizabeth Sisk Ullrich, and two daughters, Elizabeth and Hazel, survive.

Mathematics and physics greatly interested Doctor Ullrich, and he often used the basic principles of these subjects together with simple line drawings to explain to patients their particular lesions. His intimacy with the physical sciences was one factor in his decision to choose orthopaedics as a specialty. One of his abiding concerns was the correction of spinal curvature in young people; in fact, his thesis for the D.Sc. degree was a monograph on this subject. In this highly specialized field, he best expressed his great compassion for his patients, and in it demonstrated some of his most enduring qualities: dedication, patience, optimism, humility, gentleness, and high regard for his fellow beings. He had the greatest respect for each patient as an individual; and each patient benefited by his skill and warm friendliness. He had that rare quality known as "the common touch," so that people of all ages, all faiths, and in all walks of life were his friends. His colleagues prized his friendship, and held him in great esteem for his honesty, his judgment and skill, and the kindness he displayed to all whom his life touched. His students and house officers profited by his lucid teaching and the notable degree of his technical proficiency. They were also profoundly influenced in their formative years by his exemplary personal and professional ethics which encouraged emulation. For example, house officers soon learned his passion for promptness.

We who were so fortunate as to know Doctor Ullrich intimately are the better for his warm friendship, and especially for the example of inspiring courage he left us as a legacy. Eight centuries before Christ, the prophet Micah wrote what

might well have been the credo of this beloved physician, "He hath shewed thee O man, what is good; and what doth the Lord require of thee, but to do justly, and to love mercy, and to walk humbly with thy God?"

JOHN E. SAVAGE, M.D.

DR. CLIFFORD BLITCH RESIGNS AS HOSPITAL HEAD

Dr. Clifford G. Blitch, Director of the University Hospital, has announced his resignation as a member of the medical school faculty as of July 1, 1958. Dr. Blitch will enter private practice in Florida.

As Administrator of the University Hospital, Dr. Blitch has been responsible for many innovations and for the development of a sound organizational and managerial policy. Members of the Medical Staff have found his administration most cooperative. As a man he has distinguished himself through his intense application and devotion to his duty and to the excellent status of the hospital. Mr. Ladislaus F. Grapski succeeds him in this important position.

DEPARTMENT OF PSYCHIATRY CO-SPONSORS COURSE ON PSYCHIATRY AND PSYCHOSOMATIC MEDICINE

Under the joint auspices of the Psychoanalytic Society of Baltimore, the Department of Psychiatry of the University of Maryland and the National Institute of Mental Health, a symposium entitled "Fundamentals of Psychiatry and Psychosomatic Medicine—Principles of Diagnosis and Treatment" was held June 9-12, 1958.

Dr. Leo H. Bartemeier, Medical Director of Seton Institute, was Chairman of the Committee in charge of organization. The faculty included Dr. Manfred S. Guttmacher, Dr. Wendell Muncie, Dr. Eugene Meyer, Dr. Eugene B. Brody, Dr. Isadore Tuerk, Dr. Gene Gordon, Dr. Reginald S. Lourie, and Mr. L. Whiting Farinholt, Professor of Law at the University of Maryland School of Law and Professor of Law in Psychiatry at the School of Medicine.

DIVISION OF DERMATOLOGY ACTIVE IN NATIONAL SOCIETIES

Dr. Harry M. Robinson, Jr., has recently been elected to the Board of Directors of the American Academy of Dermatology. Dr. Robinson will read a paper at the December meeting of the American Academy of Dermatology entitled, "The Ocular Mucous Membrane Syndrome."

Dr. Harry M. Robinson, Jr., Dr. Joan Raskin and Dr. R. C. V. Robinson will present an exhibit on "Antibiotic Therapy of Staphylococcal Infections" at the meeting of the Southern Medical Association in New Orleans, Louisiana in November, 1958. This exhibit will also be presented at the annual meeting of the American Academy of Dermatology in December.

The Division of Dermatology announces the opening of a new subdivision of dermal pathology in collaboration with the department of pathology of the School

of Medicine. Through the use of restricted funds the division has purchased a Microtone and other necessary equipment. The department's technician, Miss Alice Conlan, is being trained in dermal pathology and the techniques of histopathology prior to the opening of the new division. In collaboration with the department of pathology, this division will present a course to graduate students on dermal pathology beginning in the fall of 1958.

Dr. Joan Raskin, assistant in dermatology, attended the Venereal Disease Conference in Houston, Texas, on April 23-25, 1958.

ALICE MESSINGER BAND MEMORIAL LECTURESHIP

Dr. Lawrence E. Young Speaks on Some Newer Concepts of Hemolytic Disorders

The annual Alice Messinger Band Memorial Lectureship in Hematology was held in the School of Medicine on March 13, 1958. Dr. Lawrence C. Young, Professor of Medicine at the University of Rochester School of Medicine, spoke on "Some Newer Concepts of Hemolytic Disorders."

The Lectureship founded in memory of the late Dr. Alice Messinger Band, a member of the Department of Medicine (hematology), has been established in order to bring to the School of Medicine some distinguished investigator in the field of hematology as an annual lectureship.

MARYLAND SOCIETY FOR MEDICAL RESEARCH NOTES

The Maryland Society for Medical Research has announced the addition of a new motion picture entitled "Explorations in Laboratory Animal Care" which was produced at the University of California in Los Angeles.

The film is skillfully and beautifully done in color and sound and runs for 22 minutes. It shows graphically the careful planning and meticulous attention to proper nutrition and sanitation which goes into the care of laboratory animals used in scientific experiments.

Another film, "A Matter of Time," has been acquired. This film presents some simple facts about the anatomy and physiology of the heart, how obstruction and blood flow affects the brain, heart and kidneys and demonstrates some of the modern diagnostic techniques.

Both films are highly recommended for showing before science classes and clubs in high schools and colleges and for other interested groups.

All films may be obtained on a free loan basis by writing the Society's office, 522 West Lombard Street, Baltimore, or calling Mulberry 5-5348.

PHI DELTA EPSILON ANNUAL LECTURE

Dr. Rupert Turnbull, Jr., of the Department of Surgery of the Cleveland Clinic was the 1958 lecturer under the Phi Delta Epsilon Lectureship Fund. Dr. Turnbull spoke on the subject of "Enterocolitis," calling attention to the fre-

quency of complications of this sort following the use of antibiotics. The lecture was held in Gordon Wilson Hall of the University Hospital on April 14, 1958.

MARYLAND NEURO-SURGEON HEADS CONGRESS OF NEUROLOGICAL SURGEONS

Dr. Raymond K. Thompson, Assistant Professor of Neurological Surgery in the School of Medicine, has recently been elected President of the Congress of Neurological Surgeons.

Dr. Thompson, a member of the class of 1941, received his resident training in neurosurgery at the University Hospital and has been active on the staff of the School of Medicine since his graduation.

CORRECTION

In the January, 1958, number of the BULLETIN OF THE SCHOOL OF MEDICINE on page vii it was mentioned that Dr. Gillis in 1953 received an honorary degree of Doctor of Science from this University. Dr. Gillis informs us that he received the Doctor of Science degree from Saint Francis Xavier University, Antigonish, Nova Scotia. The BULLETIN regrets the error and the omission.

ALUMNI



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* July 1, 1958 to June 30, 1959

ALUMNI PRESIDENT'S LETTER

Dear Fellow Alumni:

It is a great honor to be elected President of the University of Maryland Medical Alumni Association and I sincerely hope that my term in office will be productive.

It is my personal feeling that the officers and the Board of Directors of the Medical Alumni Association are your elected representatives and therefore should earnestly consider any suggestions you may present. This organization should be an effectively managed, well-run machine, with the ultimate aim of benefiting the University of Maryland School of Medicine and improving the relationships among the administration, the student body, the BULLETIN, and the Alumni. This cannot be done without your help, and it is with this thought in mind that I earnestly solicit your advice.



HARRY M. ROBINSON, JR., M.D.

During the coming year, we expect to have regular monthly meetings of the Board of Directors. We are attempting

to establish a Baltimore organization with representatives from each of the graduating classes in which there are living alumni. These groups will be charged with the responsibility of furnishing to the Alumni Association's main office news relative to our graduates. These groups will also have the responsibility for arranging Alumni reunions in Baltimore for the five year groups, stimulating interest in the association, and aiding in the annual roll call.

We hope to have a very active Alumni section in the BULLETIN in which will be published news of new appointments, lectureships, items of general interest, deaths, etc. This news can be furnished through direct letters to the Alumni office or to the members of the Baltimore Alumni group for each class. As soon as these Baltimore groups are established, a list will be published in the BULLETIN.

Plans are being made for a mid-winter meeting of the Alumni Association to be held in January of 1959. This will be a scientific session lasting from 2 to 3 days. At this time papers of general interest will be presented and current research at the University discussed. One evening during this meeting we will have an old-fashioned Baltimore oyster roast.

I will keep you posted either through the BULLETIN or by direct letter of events to come.

My sincere personal regards to each of you.

Sincerely,

HARRY M. ROBINSON, JR., M.D.

President of the Alumni Association

DR. LEONARD BACHMAN ACTIVE IN MEDICAL RESEARCH

Dr. Leonard Bachman, class of 1949, who is Director of the Division of Anesthesiology of the Children's Hospital of Philadelphia, has recently been awarded a grant from the National Institute of Health and also from the Squibb Institute for Medical Research for continuing studies in the problems of Pediatric Anesthesiology. Dr. Bachman is also Assistant Professor of Anesthesiology at the University of Pennsylvania School of Medicine.

EDITOR'S NOTE OF THANKS

We are continuing the Alumni News Report at the end of the Alumni Section of the BULLETIN. Response to our request for information from you, the Alumni, has been most encouraging.

To those who have sent information we offer our sincere thanks. To those who have seen the questionnaire and intend to fill it out, may we suggest that you complete it and forward it to us promptly. To those who have not seen it, may we refer you to the last page of the BULLETIN and urge you to complete the questionnaire and send it to us. The information we have received has been of interest to us and to the entire family of our University, the Faculty and its Alumni.

ITEMS

Dr. William J. McKinnon, class of 1940, of Wadesboro, N. C., has recently been elected Fellow of the International College of Surgeons. Several years ago Dr. McKinnon was elected Fellow of the American College of Surgeons.

Dr. William Francis Martin, class of 1920, was recently honored by Belmont Abbey College, Belmont, North Carolina, where he received an honorary degree of Doctor of Laws. Dr. Martin, a Diplomate of the American Board of Surgery, practices general surgery with offices at the Hawthorne Medical Center in Charlotte, North Carolina.

Dr. Morris B. Levin, class of 1914, is the author of two papers, one entitled "The Common Cold in the Local Immune Barrier Factor" published in the *American Practitioner and Digest of Treatment* (Aug.1957:Vol.8,no.8) and a paper entitled "The Simple Visual Test for Gastric Digestion" published in the *American Practitioner and Digest of Treatment* (Vol.7,no.12).

Dr. Samuel Jackson, class of 1937, has recently been elected President of the Nassau County (New York) Chapter of the American Academy of General Practice. The Nassau County Chapter is the second largest Chapter of the Academy in the United States, having an enrollment of better than 230 general practitioners. Dr. Jackson's work on the Educational Committee of the Nassau County Medical Society has been of outstanding merit and has set a pattern for similar activity by many neighboring County Medical Societies.

Dr. James B. Dalton, Jr., class of 1948, has recently been certified by the American Board of Orthopedic Surgery and in January, 1958, was inducted into the American Academy of Orthopedic Surgery. Dr. Dalton, whose address is 401 Medical Arts Building, Richmond, Virginia, is currently an instructor in orthopedic surgery at the Medical College of Virginia Hospital.

Dr. Morton L. Hammond, class of 1942, has recently been certified in Internal Medicine by the American Board of Internal Medicine. Dr. Hammond practices at 541 Lincoln Road, Miami Beach, Florida.

Dr. Harry M. Robinson, Jr., class of 1935, has announced the removal of his office for the practice of dermatology to 1209 Saint Paul Street in Baltimore.

Col. John Rizzolo, MC, USAF and a member of the class of 1938, is serving as Assistant Executive Secretary of the Armed Forces Epidemiology Board with offices in the Main Navy Building, Washington 25, D. C.

Dr. Wyand F. Doerner, class of 1953, recently opened his offices for the practice of medicine at the Algonquin Hotel, Cumberland, Maryland.

Dr. J. Ogle Warfield, Jr., class of 1922, is currently serving as Chairman of the Department of Surgery at the new Washington Hospital Center located south of the Soldiers' Home in Washington, D. C.

Dr. William Carl Ebeling, class of 1944, has announced the removal of his office for the practice of internal medicine to the Medical Arts Building in Baltimore.

Dr. David Merksamer, class of 1928, who practices at 105 Lincoln Road in Brooklyn, New York, has been active in the field of allergy. A licentiate of the American Board of Pediatrics in 1943 and certified in allergy in 1949, Dr. Merksamer has contributed a number of papers particularly relating to sensitivity derived from mold. In 1956 he won honorable mention for an exhibit at the American Medical Association Convention entitled "Air Borne Mold Spores—Seasonal Allergy." Dr. Merksamer recently completed a seven-year study relating to the evaluation of atmospheric molds as allergens in the New York Metropolitan area. This was published in the *Journal of Allergy*, Jan.-Mar., 1958.

Dr. Houston L. Bell, class of 1944, who practices at 711 South Jefferson Street in Roanoke, Virginia, was recently made a member of the American Laryngological, Rhinological and Otological Society. Dr. Bell is also a Fellow of the American College of Surgeons, receiving this honor at the last Convocation held in October, 1957. He has been a steady contributor to the College meetings throughout the country. Dr. Bell presented a paper at the Laryngological Section of the American Medical Association in San Francisco.

ALUMNUS ACTIVE IN MEDICAL WRITING AND RESEARCH

Dr. I. Phillips Frohman, class of 1937 and a general practitioner in Washington, D. C., has recently been appointed General Editorial Consultant for *Current Medical Digest*. Dr. Frohman is also Contributing Editor to the *South African Practitioner*, a member of the Editorial Board of the *District of Columbia Medical Society Journal*, *Medical Annals* and has recently edited the Abstract Section for the *American Academy of General Practice*.

An active member of many societies, Dr. Frohman has found time to serve as a member of the Board of Directors of the American Medical Writers' Association and has appeared on the Society's Annual Program. Quite recently Dr. Frohman completed a study on iron deficiency anemia, the entire research project being conducted along with a busy general practice. Dr. Frohman was also a guest on the "Voice of America," his address being concerned with advances in science and the subject of general practice in the United States.

Dr. Frohman practices at 2924 Nichols Avenue, S.E., in Washington, D. C.

MEET THE EMERITI

DR. PAGE EDMUNDS

Dr. Page Edmunds was born in Leonardtown, Calvert Co., Maryland, in 1872. His parents were Virginians and moved to southern Maryland just before their youngest son's birth. His father was a professional man also, practicing Dentistry first in Virginia, then at Leonardtown, and finally in Baltimore. The family moved to the city in 1878 and Page received all his elementary and secondary education in the public schools of Baltimore City. He graduated from Baltimore City College in about 1892. Although a Marylander by birth, and a Baltimorean by upbringing,



DR. PAGE EDMUNDS

Dr. Edmunds still carries the speech and accent of a Virginian.

He had his mind set on the study of medicine early, and matriculated at the School of Medicine, University of Maryland, in 1894. There was a wide choice of medical schools in Baltimore in those days, and we compliment him on his wise decision to study at the University of Maryland. He was in the first four-year class, graduating in 1898. It was not the custom to intern in those days, but Dr. Edmunds, after graduation, associated himself with the University Hospital in the afternoon out-patient clinics. This carried an honorarium of fifty dollars a year. The clinics were: Gynecology, Nose and Throat and G.U. Surgery. His interest and time spent in G.U. increased and after three years he decided to spend a year abroad and master the technique of cystoscopy. This

new procedure was practiced by only one other surgeon in Baltimore at the time. Dr. Edmunds spent the year 1904-05 in Berlin learning the technique of cystoscopy and extending his knowledge of Genito-urinary surgery. Returning to Baltimore in 1905, he became the active chief in teaching G.U. surgery and cystoscopy at the University.

In 1906 an accident service was instituted at the Mt. Clair shops of the Baltimore and Ohio Railroad. Dr. Edmunds became the part-time director of this clinic. It was one of the first such industrial clinics to take care of the needs of their own employees. His interest in traumatic surgery increased as did his time devoted to this expanding phase of surgery. He was instrumental in arranging necessary hospitalization for B & O employees at the University Hospital, and later, through mutual cooperation, additional ward space was provided and maintained by the Railroad.

With the advent of World War I, Dr. Edmunds was sought to be the chief surgeon at Camp Meade. In the early part of the war about 14 per cent of draftees were rejected for hernia or potential hernia. The policy was later changed to accept those boys into the service, repair their herniae and send them to active duty after convalescence. There were 2,800 beds at Camp Meade for this purpose. Dr. Edmunds was the chief surgeon, having done much work of this type for the railroad. He states he performed as many as 20 hernioplastys a day for months. His service became a center for demonstration and teaching. Later Dr. Edmunds went overseas as Chief of the 16th Evacuation Hospital in France as Lt. Colonel under Dr. J. M. T. Finney who was surgical chief of the entire A.E.F. Returning

to Baltimore in 1919, Dr. Edmunds became full-time chief surgeon of the B & O Railroad with offices at the University Hospital. He was also made professor of traumatic surgery about this time. He remained active in both of these capacities until his retirement from the B & O in 1941. With the outbreak of World War II he continued actively in teaching and was very busy and diligent in his service to the medical advisor board of selective service, using the personnel and facilities of the B & O Offices at the University Hospital. He officially retired in 1943, after almost 40 years of service to the University.

Dr. Edmunds married in 1907 and has recently celebrated 50 years of wedded life. They were never blessed with children but have maintained a strong union and are enjoying retirement together. In 1931 Dr. Edmunds built a summer home at Gibson Island and later converted this for year-round living. He and Mrs. Edmunds had lived in Roland Park prior to this time.

Dr. Edmunds is still active, interested in medicine, current affairs and sports. He has golfed until recently, but now says, "His legs won't take it." As Sage of Gibson Island, his house is headquarters for his many staunch friends. Best wishes in your well-earned retirement years, Dr. Edmunds.



DR. EDMUNDS IN HIS FLOWER GARDEN
AT GIBSON ISLAND.

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PROCEEDINGS OF THE UNIVERSITY OF MARYLAND BIOLOGICAL SOCIETY

March 12, 1958. Program Meeting. Bressler Library. A paper entitled "The Blood Vascular Supply of the Dental Pulp with Emphasis on Capillary Circulation" was presented by Dr. D. Vincent Provenza, Prof. of Histology and Embryology, University of Maryland School of Dentistry. (See abstract, below.)

April 9, 1958. Program Meeting. Bressler Library. The following papers were presented: "The Metabolism of Naturally Occurring Diamines and Polyamines" by Drs. Edward J. Herbst, Robert H. Weaver, Donald L. Keister and B. P. Doctor, of the Department of Biological Chemistry, University of Maryland, School of Medicine. (See abstract, below.) "Practical Application of Immunological Relationships Among the Group B Arboviruses (Arthropod Borne)" by Dr. Benjamin H. Sweet, Assistant Professor of Microbiology, Department of Microbiology, University of Maryland School of Medicine. (See abstract, below.)

May 14, 1958. Annual Dinner Meeting. Candlelight Lodge, Catonsville, Md. Following the dinner, a paper entitled "Animal Experimental Methods for the Evaluation of Drug Effects Upon Behavior" was presented by Dr. Joseph V. Brady, Chief of the Department of Psychology, Walter Reed Army Institute of Research, and the Psychopharmacology Laboratory, University of Maryland. (See abstract, below.)

ABSTRACTS

Vascular Sphincters in Myocardium and Dental Pulp*. By D. Vincent Provenza, Ph.D., Department of Histology and Embryology, Baltimore College of Dental Surgery, Dental School, University of Maryland.

The larger pulp arteries never exceed the dimensions of an arteriole. The arterial walls are reduced in their structure. However, 3 layers are distinguishable: intima, media and

* Presented March 12, 1958.

adventitia. The intima consists of an endothelial lining; and if the internal elastic lamina is present, it is poorly defined. The media is well developed, consisting of 1-3 layers of circularly disposed muscle. Although these cells are for the most part similar to those located in other organs, one peculiarity was consistently noted. The chromatin material of the nucleus was finer and stained more hypochromatically than muscle-nuclei in other tissues. The adventitia consisted of tissue through which the vessel ran. The veins are characterized by their large lumina, which are several times larger than the corresponding arteries, and by the thin walls. The intima consists of an endothelial lining, the media of a layer of muscle and the adventitia of the tissue through which it traverses. The capillary network is composed of various types of vessels. Among these are the true capillaries, which are vessels whose sole composition is endothelial in nature. The metarteriole is a capillary-like structure differing from the true capillary in that at varying intervals a single muscle cell or a group of muscle cells are found to surround the endothelial cells. The precapillary is a true capillary except that a muscle cell or sphincter is found at the segmental area of attachment with the parent vessel. Arteriovenous anastomoses are also located within the pulp.

**Histologic studies of the myocardium of dogs, obtained immediately after death revealed sphincter muscles about metarterioles and precapillaries in the myocardium. Special stains demonstrated nerve fibers ending in these sphincters. Two human heart specimens, obtained and fixed within a short period following death, also revealed sphincter muscles similar to those demonstrated in the dog. In dogs the metarterioles and precapillaries were observed in constricted and dilated states following the administration of certain drugs immediately preceding death and fixation of dog's myocardium. The application of this method to the study of coronary circulation and the possible influence of these vaso-constrictor mechanisms upon coronary flow was discussed.

***All of the muscle-bearing blood vessels of the dental pulp—arteries, veins and capillaries (metarterioles and sphincters of precapillaries)—demonstrated vaso-dilatation with the topical application of nitroglycerine. The pulps, to which adrenalin was applied topically, topographically demonstrated an appreciable decrease in the amount of blood present in the blood vessels of all calibers. The true capillaries were not as frequently in evidence. The muscle-bearing vessels of the coronal as well as the radicular portions of the pulp were characterized by marked vaso-constriction.

The Metabolism of Naturally-Occurring Diamines and Polyamines.* By Edward J. Herbst, Robert H. Weaver, Donald L. Keister, and B. P. Doctor, Department of Biological Chemistry, School of Medicine, University of Maryland, Baltimore, Md.

Diamines (including putrescine and 1,3-propanediamine), and polyamines, such as spermine and spermidine, are essential metabolites for a number of microorganisms and are widely distributed in nature. A microbiologic assay was developed for the quantitative analysis of these compounds, and a paper electrophoresis procedure was employed for the separation and identification of the naturally-occurring amines in a variety of tissues. The interconversion of the compounds during the growth of a microorganism dependent upon an exogenous source of either a diamine or a polyamine was defined by the application of these analytical methods. Essential polyamines are converted to a diamine; diamines, supplied by biosynthesis or by the growth medium, are not degraded by amine-dependent microorganisms. These growth factors are present in microorganisms as nucleic acid-amine complexes. These

** The studies conducted with Sidney Scherlis, M.D., Assistant Professor of Medicine, School of Medicine, University of Maryland.

*** These studies conducted with W. Robert Biddington, D.D.S., Associate Professor, Oral Medicine, Baltimore College of Dental Surgery, Dental School, University of Maryland.

* Presented April 9, 1958. Supported by grants from the American Cancer Society, Maryland Division, the Office of Naval Research, and the United States Public Health Service.

complexes are believed to represent the biologically active form of the amines. When amine-dependent microorganisms are incubated in Tris buffer at pH 8.1 and 37°, the cellular ribonucleic acid is rapidly degraded to acid soluble products with a characteristic nucleotide absorption spectrum. This reaction, which appears to be catalyzed by a ribonuclease, is completely inhibited by spermine. The action of spermine and the related microbial growth factors is probably very closely linked to the essential metabolism of nucleic acid. The significance of these observations and the extension of the research was discussed.

Practical Applications of Immunological Relationships Among the Group B Arthropod (Arthropod borne) Viruses.* By Benjamin H. Sweet and Charles L. Wisseman, Jr., Department of Microbiology, School of Medicine, University of Maryland, Baltimore, Md.

The arthropod viruses are a group of agents whose vector in nature are mosquitoes, ticks or perhaps mites. All probably cause primary infections of birds and mammals, and man is only accidentally infected. The disease states in man may range from death, due to severe encephalitis or severe visceral damage, to relatively mild febrile reactions which may or may not be associated with dermal signs. Most of these viral diseases of man have a very limited geographic distribution, but as a group they occur throughout the world. The diseases produced in man have a clearly defined seasonal incidence, primarily during the warm months, which coincides with the prevalence of the insect vectors.

Prior to 1930, the arthropod-borne viral disease entities that were conclusively established as causes of human disease were yellow fever, dengue and sandfly fever. With the adaptation of the yellow fever virus to the laboratory mouse by the intracerebral route, a technique became available for the isolation and serologic identification of new viruses. Thus during the years between 1930-1940 many new viruses were isolated and described and their relationships to human and animal diseases conclusively established. These viruses were eastern, western and Venezuelan equine encephalitis, St. Louis, Japanese B, and Russian spring-summer encephalitis and Rift Valley fever.

As a result of the impetus of the war years (1940-1950), rapid progress was made in serologic techniques and methods of isolation of arthropod-borne viruses, so that by the beginning of 1950 approximately 20 new agents were identified; only 7 of which have been proved to be of medical importance to man. Serologic surveys of indigenous human populations in areas of the world such as Africa, the Southwest Pacific, India, and Egypt carried out with a battery of arthropod-borne viruses revealed that many individuals had neutralizing antibodies for viruses which had not been uncovered in the area in question. Thus confused aspects of the disease resulted in respect to (1) the areas of the world where the different viruses were to be found and (2) the importance of many of the newly discovered viruses whose relationship to human disease had not been established, except that individuals contained antibodies for them.

Early in 1950 new serologic tests were developed, and together with certain host range studies it became apparent that these viruses may be grouped into 3 distinct classifications designated group A, group B and ungrouped. Members of group A or B have been shown to be interrelated serologically within their respective group but not between the 2 groups. The ungrouped classification contains a number of agents not related to each other nor to members of group A or B. During this period the suckling mouse was found to be a more sensitive host for the isolation of arthropod-borne viruses and a search was begun in many of the tropical and subtropical areas of the world for the isolation of viruses whose presence had been suggested by the serologic surveys. A few were found; however, a great many heretofore unknown viral agents were uncovered, so that by 1957 well over 75 agents have been described and tentatively classified. Of these 75 or more agents only 15 have been proved to be of medical importance. Thus placed in Group A are the serologically related agents causing equine encephalitis and two other new viruses which cause dengue-like diseases. Group B is represented by Russian spring-summer, Japanese B, and St. Louis encephalitis

* Presented April 9, 1958.

viruses, along with the dengue, yellow fever and West Nile fever viruses, all of which are of proved human importance. Also in this latter group 10 additional viruses whose role in human disease is unknown; although individuals may contain antibodies for one or more of them.

The alarming multiplicity of the Group B viruses calls for an elucidation of the basic principles upon which a potentially simplified practical immunization can be established. The present study is a portion of a larger one which is aimed at taking advantage of the serologic cross-reaction patterns of the Group B viruses, by judicious employment of the living avirulent vaccines for yellow fever and dengue in combination with formalinized Japanese B or Russian spring-summer encephalitis vaccines, in an attempt to establish a broad immunity in man for the important and potentially important members of this group. A general consideration of the problem pointed out the need for further information derived from man on the predictable cross reactions that could be produced following experience with a Group B virus. Toward that end groups of University of Maryland medical students (with no prior experience with Group B viruses) and students from Tokyo University Medical School (with or without group B antibodies) were inoculated with a standard dose of 17-D yellow fever vaccine and their antibody responses to yellow fever and other group B viruses were determined before and after vaccination. Results have shown that individuals from either group who had no prior experience with a group B virus responded *only* with the development of yellow fever antibodies in relatively high titer. In addition these individuals tended to demonstrate a higher level of viremia. On the other hand, individuals who had prior experience with at least one group B virus before vaccination, *i.e.*, Japanese B encephalitis, seemed to develop a lower titer of antibodies for yellow fever and exhibited a lower level of viremia. These latter individuals responded with the *de novo* development of antibodies for the related viruses of West Nile, dengue 1 and dengue 2 and West Nile viruses. No responses were elicited to St. Louis encephalitis or Russian spring-summer viruses as evidenced by the mouse intracerebral neutralization test.

These results have indicated that individuals previously infected either apparently or inapparently with a group B virus react to the inoculation of 17-D yellow fever virus with the production of *heterologous antibodies*. This may explain somewhat the results obtained by numerous investigators in the serologic surveys of indigenous natives in certain areas of the world where related viruses have never been isolated. Despite this demonstration of a widening of antibody spectrum, and its possible practical utilization in any future immunization program, we cannot at this time answer the definitive question whether these heterologous antibodies protect against natural infection with these viruses.

Animal Experimental Methods for the Evaluation of Drug Effects Upon Behavior.* By Joseph V. Brady, Walter Reed Army Institute of Research and Psychopharmacology Laboratory, University of Maryland.

The widespread application of pharmacologic agents in the treatment of psychiatric disorders has stimulated renewed interest in laboratory evaluation methods for the behavioral effects of drugs. Animal conditioning techniques, developed for the experimental analysis of behavioral processes, have begun to make significant contributions in this area and important psychopharmacologic relationships are beginning to unfold at this laboratory level. Techniques for the precise experimental control and programming of complex behavioral patterns in rodents, carnivores, and primates have made it possible to establish stable and reproducible baselines for such preclinical assessment efforts. The differential effects of drugs upon selected components of a behavior pattern can be evaluated in this way and "behavioral profiles" on the more common centrally-acting agents are in the process of development. An approach is being made to the problem of emotional or motivational effects of drug administration with control procedures for the assessment of sensory and motor deficits related to the concept of "behavioral toxicity." Ultimately, it may even be possible to selectively sample new behavioral effects and develop compounds for specific psychopharmacologic purposes.

* Presented May 14, 1958.



Obituaries



DR. ALBERT B. KUMP



DR. ALBERT B. KUMP

Dr. Albert B. Kump, class of 1938, and President of the Medical Society of the State of New Jersey, died April 18, 1958, at his home in Bridgeton, New Jersey. Dr. Kump had been ill for some months suffering from a combination of myocardial infarction and bronchogenic carcinoma.

A graduate of the Bridgeton High School and Blair Academy, he received his Bachelor of Arts degree from the Johns Hopkins University. Following his graduation from the University of Maryland he interned at Cooper Hospital in Camden, New Jersey, and in 1939 established his practice in Bridgeton, New Jersey. He was Chief of the Department of Obstetrics at the Bridgeton Hospital and since 1946 was active on the Surgical Staff. Dr. Kump was a past President of the Cumberland County Medical Society and at the time of his death was

President of the Medical Society of the State of New Jersey. He was a member of the American Medical Association and held Fellowships in the New Jersey Obstetrical and Gynecological Society, the Industrial Medical Association, the Philadelphia Medical Association, the Philadelphia Industrial Medical Association and the New Jersey Academy of Medicine. He was a Fellow of the International College of Surgeons. In commenting on his death, the Board of Directors of the Bridgeton Hospital said: "The death of Albert B. Kump comes as a great loss to our medical staff, to the Bridgeton Hospital, its Board of Directors, its employees, the community and many persons throughout the State of New Jersey.

"In the course of his rise to the highest medical office in the State of New Jersey Dr. Kump had won the respect and regard of medical men all over the State."

DR. LOUIS DROSIN

Dr. Louis Drosin, a member of the class of 1905, and Chief of the Out-patient Department of the Beth David Hospital in New York City, died of a heart attack on April 19, 1958, at his home, 302 West Eighty-sixth Street. He was 76 years of age.

Dr. Drosin was an outstanding New York gynecologist and obstetrician and had served on the staff of Beth David Hospital for 34 years. He retired two years ago.

He was a fellow of the American College of Obstetricians and Gynecologists and the American Geriatric Society. He was also a member of the American Medical Editors and Authors Association. He was the author of some 42 medical articles and had published some poems. At the time of his death Dr. Drosin was preparing two volumes of poetry for publication.

In a letter addressed to Mrs. Drosin, Dr. Stone, Dean of the School of Medicine, stated: "Our kindest thoughts are with you during this difficult time, but we feel that you can take great satisfaction in knowing the high esteem that Dr. Drosin's contemporaries held for him."

DR. GLENN H. ALGIRE

Dr. Glenn H. Algire, eminent research biologist and member of the class of 1940, died on April 29, 1958.

A native of Baltimore, Dr. Algire held the rank of senior surgeon in the United States Public Health Service and had been an active researcher at the National Cancer Institute since his graduation from the School of Medicine. He had become internationally known for his studies on rat melanoma for certain techniques of observation of the growing neoplastic cells by the means of vinyl plastic windows and extremely complex minute precision instruments used in his observation.

He was graduated from Columbia University in the class of 1930 and following his graduation from the School of Medicine served his rotating internship at the University Hospital. From 1937 to 1938 he was a Weaver Fellow in the Department of Anatomy at the School of Medicine where he performed creditable research under the direction of Dr. Eduard Uhlenhuth. From 1941 to 1943 he was Guest Worker and Research Fellow at the National Cancer Institute.

DR. LYNN H. BRUMBACK

Dr. Lynn H. Brumback, class of 1920, and Chief of Surgery at the Washington County Hospital in Hagerstown, Maryland, died suddenly on May 7, 1958, while making rounds in the hospital. Dr. Brumback was 62. Death was due to a heart attack.

He was a graduate of the University of Virginia and after his graduation from the School of Medicine Dr. Brumback interned at the University and Mercy Hospitals in Baltimore.

DR. JOHN J. ERWIN

Dr. John J. Erwin, class of 1920, and Chief of Obstetrics at the Mercy Hospital of Baltimore, died on March 14, 1958. He was 66.

Dr. Erwin had practiced in Baltimore since his graduation from the School of Medicine. He was also active on the staffs of the Hospital for the Women of Maryland and the Bon Secour Hospital.

A native of Fairmont, West Virginia, he received his residency training both at the Mercy Hospital in Baltimore and at the New York Lying-In Hospital, New York City.

DR. LEO H. SALVATI

Dr. Leo H. Salvati, a member of the class of 1924, died at Muhlenberg Hospital, Westfield, New Jersey, on February 13, 1958. Death was due to a heart attack.

Dr. Salvati, who practiced at 1250 Prospect Street in Westfield, was a graduate of the University of West Virginia and the School of Medicine of the University of Maryland. He served his internship in the Muhlenberg Hospital and was later appointed senior attending surgeon there in 1937, ultimately becoming chief of the hospital's department of surgery.

A Navy veteran of World War I, he also served as Medical Examiner for the Westfield Draft Board in World War II and was a member of the Confederate Veterans Camp of New York. He was a member of the Rotary Club, and the Union County, Plainfield and Westfield Medical Societies and was a Fellow of the American College of Surgeons and of the International College of Surgeons. Last November he was elected treasurer of the State Society of Surgeons in Trenton.

Barker, Joseph Walter, Hebron, O.; B. M. C., class of 1898; aged 84; died, January 19, 1958.

Bicknell, George C., Indian Head, Md.; B. M. C. class of 1904; aged 77; died February 10, 1958.

Biddle, Asher Cadden, Mansfield, O.; P & S, class of 1904; aged 84; died, January 13, 1958, of coronary disease.

Breeding, Earle Griffith, Washington, D. C.; class of 1913; aged 69; served during World War I; died, January 16, 1958.

Burtnick, Lester Leon, Washington, D. C.; class of 1937; aged 47; served during World War II; died, December 16, 1957, of lymphosarcoma.

Byrnes, Harry Francis, Springfield, Mass.; B. M. C., class of 1904; aged 81; served during World War I; died, January 2, 1958, of bronchopneumonia.

Childs, Charles Chapin, Niagara Falls, N. Y.; class of 1916; aged 69; served during World War I; died, November 19, 1957, of cancer of the bladder.

Cockrell, Loren Eugene, Kinsale, Va.; class of 1895; aged 87; died, November 15, 1957, of cerebral hemorrhage.

Fallon, Joseph D., Northampton, Mass.; P & S, class of 1913; aged 71; died, December 21, 1957, of coronary thrombosis.

Fenner, Edwin Ferebee, Henderson, N. C.; class of 1905; aged 77; served during World War I; died, February 2, 1958, of heart disease.

Gale, Louis Harry, Erie, Pa.; class of 1925; aged 57; died, January 18, 1958.

Hart, William Lee, Brig. Gen., MC, USA (ret'd), San Antonio, Tex.; class of 1906; aged 76; served during World War I; died, December 22, 1957, of cerebral thrombosis.

Hays, Almont Deaver, Cherokee, Kan.; P & S, class of 1901; aged 85; served during World War I; died, December 20, 1957, of myocardial insufficiency.

Love, Samuel Glenn, Asheville, N. C.; class of 1914; aged 66; died, February 14, 1958.

Lowry, John A. B., Crewe, Va.; class of 1915; aged 67; served during World War I; died, February 4, 1958, of acute coronary occlusion.

Marston, James Graham, Baltimore, Md.; class of 1917; aged 66; served during World War I; died, December 13, 1957.

McDonnell, Henry Barnett, College Park, Md.; class of 1888; aged 94; died, February 8, 1958.

Messmore, John Lindsey, Masontown, Pa.; class of 1909; aged 70; served during World War I; died, January 3, 1957, of cerebral hemorrhage.

Montoney, Decatur, Elkins, W. Va.; B. M. C., class of 1894; aged 89; died, December 6, 1957.

Rawlings, James V., Indianapolis, Ind.; P & S, class of 1887; aged 99; died, January 27, 1958, of bronchopneumonia.

Rhoads, John Peter, Tioga, Pa.; class of 1931; aged 55; served during World War II; died, December 30, 1957, of pulmonary embolism.

Rogers, Weaver Burnside, Clarksburg, W. Va.; B. M. C., class of 1907; aged 77; served during World War I; died, December 31, 1957, of asthma and cardiac dilatation.

Rose, Edward Ernest, Huntington, W. Va.; P & S, class of 1907; aged 74; died, March 5, 1957.

Rossiter, Perceval Sherer, Rear Admiral, MC, USN (ret'd), class of 1895; aged 83; served during Spanish-American War; former Surgeon General of the Navy; died, December 20, 1957, of coronary thrombosis.

Sekerak, Arthur Joseph Francis, Bridgeport, Conn., class of 1922; aged 59; died, February 19, 1958, of heart disease.

Shankwiler, Reed A., Detroit, Mich.; class of 1909; aged 72; served during World War I; died, February 14, 1958, of acute myocardial infarction and diabetes mellitus.

Skvarla, John Augustus, Rutherford, N. J.; class of 1921; aged 62; died, December 17, 1957, of coronary thrombosis.

Stuart, Frederick B., Jonesboro, Tenn.; B. M. C., class of 1904; aged 74; died, January 16, 1958, of a heart attack.

Willis, Carson Allen, Denver, Colo.; class of 1904; aged 79; died, January 12, 1958, of chronic myocarditis and arteriosclerosis.





MEDICAL SCHOOL SECTION



DEAN'S LETTER

Dear Members of the Alumni and Friends of the Medical School:



WILLIAM S. STONE, M.D.

Through the efforts of President Wilson H. Elkins, Dr. Albin O. Kuhn, the Executive Vice-President of the University, and the Medical School administration, much has been accomplished in bringing about a greater understanding of the operational requirements and needs of the School of Medicine and the University Hospital.

During the latter part of the 1957-58 school year, an Advisory Committee appointed by the President, with elected representatives from the Medical School, has spent a great deal of time in developing basic policies and understanding of medical school faculty appointments and their responsibilities. The recommendations of this committee, after approval by the faculty, President of the University and the

Board of Regents, will constitute a Medical Service Plan for the University. It is expected that this plan will be published in the December issue of the BULLETIN as a part of the Annual Report of the School of Medicine.

On September 11, 1958, a new class entered the Medical School with high hopes for their future in medicine. We are proud of our students and their accomplishments, and we are determined to give them every opportunity to become physicians of high repute. We are receiving excellent support from the University and the State. We must recognize that in many areas, it is necessary for us to catch up as well as progress. We do need unrestricted funds to meet many problems that cannot be anticipated or through force of circumstances would have to be postponed for solution at some future date. Your contributions to the American Medical Education Foundation (AMEF), if earmarked for the University of Maryland, School of Medicine, will greatly help us to

develop the school's education and research program. We appreciate the contributions that have been made in the past, and we hope that more of you will remember our needs this year.

Sincerely,

WILLIAM S. STONE, M.D.

Dean

OLD MEDICAL BUILDING BECOMES DAVIDGE HALL

Board of Regents Transfers Historic Name from Old Medical Library to Prominent Designation of Medical Building

At a recent meeting of the Board of Regents of the University of Maryland the name of "Davidge Hall" was officially adopted and designated for the Old Medical School Building on the northeast corner of Lombard and Greene Streets. The name of Davidge Hall had formerly been used for the Medical Library. The new library now under construction will serve the interests of the Medical, Dental, Pharmacy and Nursing Schools. It is anticipated that the library will be given another name.

LIBRARY NOTES

Baltimore Contractors, Inc., have recently been awarded the contract for the construction of the new Medical Sciences Library to be erected on the former site of Davidge Hall, southeast corner of Lombard and Greene Streets. As planned, the new building will have three floors plus a basement with shelf



Site of new Medical Sciences Library.

space for about 200,000 volumes. There will also be an auditorium seating more than 400. Construction time is estimated to take about 1½ years. Readers of the BULLETIN will be kept abreast of the construction as it proceeds.

STUDENT UNION BUILDING STARTED

Some time ago notice was carried in the BULLETIN of the plans for a new Student Union for the Baltimore Schools. Construction recently began on this new project which is scheduled for completion within the next two academic years.



Construction begins on first portion of new Student Union Building.

FACULTY APPOINTMENTS, PROMOTIONS AND RESIGNATIONS

(JUNE, 1957-JUNE, 1958)

Promotions

- Dr. Robert G. Grenell—From Associate Professor of Psychiatry to Professor of Psychiatric Research.
- Dr. Enoch Callaway—From Assistant Professor of Psychiatry to Associate Professor of Psychiatry.
- Dr. Benjamin Pope—From Assistant Professor of Psychiatry to Associate Professor of Medical Psychiatry.

- Dr. John L. White—From Assistant Professor of Physiology to Associate Professor of Physiology.
- Dr. Charles Bagley, III—From Associate in Psychiatry to Assistant Professor of Psychiatry.
- Dr. Francis J. Borges—From Associate in Medicine to Assistant Professor of Medicine.
- Dr. Thomas J. Burkart—From Associate in Pathology to Assistant Professor of Pathology.
- Dr. William S. Spicer, Jr.—From Associate in Medicine to Assistant Professor of Medicine.
- Dr. Harvey A. Robinson—From Research Associate in Psychiatry to Associate Professor in Psychiatry.
- Dr. Lester Kiefer—From Associate in Pathology to Assistant Professor of Pathology.
- Dr. Herman J. Meisel—From Instructor in Urology to Assistant Professor of Urology.
- Dr. Robert D. Solomon—From Instructor in Pathology to Assistant Professor of Pathology.

New Appointments

- Dr. George Entwistle—Professor and Head of the Department of Preventive Medicine.
- Dr. Carlo A. Cuccia—Assistant Professor of Radiology.
- Dr. Arthur J. Emery, Jr.—Assistant Professor of Biological Chemistry.
- Dr. Guilfor G. Rudolph—Assistant Professor of Biological Chemistry.
- Dr. Thomas A. Good—Assistant Professor of Pediatrics.
- Dr. Jacob J. Stein—Associate in Medical Psychiatry.
- Dr. Lilburn T. Talley—Associate in Radiology.
- Dr. James E. Toher—Associate in Obstetrics and Gynecology.
- Dr. Robert E. Yin—Instructor in Pediatrics.
- Dr. Barbara Hullfish—Instructor in Pediatrics.
- Dr. Robert H. Armstrong—Instructor in Radiology.
- Dr. William N. Thomas—Instructor in Radiology.
- Dr. Howard C. Kramer—Instructor in Urology.
- Dr. Nicholas Mallis—Instructor in Urology.
- Dr. John O. Sharrett—Instructor in Surgery.
- Dr. Gerard Church—Instructor in Medicine.
- Dr. Ruth G. Wittler—Instructor in the Adjunct Faculty of the Department of Microbiology.
- Dr. Thomas H. Strong—Instructor in Obstetrics and Gynecology.
- Dr. Charles T. Fitch—Assistant in Medicine.
- Mr. John F. Carter—Assistant in Pediatrics.
- Dr. Carroll A. Weinberg—Assistant in Pediatrics.

Dr. Justus Bendien—Assistant in Psychiatry.
 Dr. Kurt R. Fiedler—Assistant in Psychiatry.
 Dr. Dan F. Johnston—Assistant in Psychiatry.
 Dr. Ernest B. Katz—Assistant in Psychiatry.
 Dr. Warren S. Poland—Assistant in Psychiatry.
 Dr. Chester L. Trent—Assistant in Psychiatry.
 Dr. Marvin H. Davis—Assistant in Medicine.
 Dr. Edmund S. Howe—Research Associate in Psychiatry.
 Dr. Gerald D. Klee—Research Associate in Psychiatry.
 Dr. Arthur B. Silverstein—Research Associate in Psychiatry.
 Dr. Walter Weintraub—Research Associate in Psychiatry.
 Mr. Henry F. Wilson—Research Assistant in Pharmacology.
 Dr. Richard W. Blide—Research Assistant in Surgery.
 Mr. Howard I. Blumberg—Research Assistant in Psychiatry.
 Mr. Thomas A. Burns—Research Assistant in Anatomy.
 Miss Lydia Czumak—Research Assistant in Psychiatry.
 Dr. Andreas D. Demetriades—Research Assistant in Thoracic Surgery.
 Miss Irene M. Fitz—Research Assistant in Anatomy.
 Miss Nancy J. Hunt—Research Assistant in Psychiatry.
 Mrs. Sheila M. Keen—Research Assistant in Medicine.
 Mr. Alfred S. C. Ling—Research Assistant in Pharmacology.
 Dr. Kevin F. McCaul—Research Assistant in Medicine.
 Miss Ann M. Meredith—Research Assistant in Medicine.
 Mrs. Caroline M. Shoemaker—Research Assistant in Anatomy.
 Dr. Masateru Toyoda—Research Assistant in Pediatrics.
 Dr. Keiya Tada—Research Assistant in Pediatrics.
 Dr. Harriet J. Aronson—Research Assistant in Psychiatry.
 Mrs. Kathryn P. Hoyt—Research Assistant in the Division of Otolaryngology.
 Dr. Harris Lovice—Fellow in Medicine.
 Dr. Thomas Davis—Fellow in Medicine.
 Dr. Robert Mosser—Fellow in Neurology.

Resignations

Dr. Luis Lombardo—Associate in Neurology.
 Dr. Joe L. Stockard—Associate in Medicine.
 Dr. Charles R. Green, Jr.—Instructor in Obstetrics and Gynecology.

DR. ALBIN O. KUHN NAMED VICE-PRESIDENT OF THE UNIVERSITY

Dr. Wilson H. Elkins has recently announced the nomination of Dr. Albin O. Kuhn as Executive Vice-President to act for the President, concentrating his activities on the professional schools in Baltimore, the University Hospital, Agricultural Departments and Finance and Business including also Plant Maintenance.

nance and Operation. Dr. Kuhn will maintain a regular schedule at his Baltimore office located in the Bressler Building.

An alumnus of the University of Maryland, Dr. Kuhn obtained his degree in agricultural education with honors in 1938 and a Master of Science degree in agronomy in 1939. In 1944 he was appointed Associate Professor in the University's Department of Agronomy, and subsequently received his Doctor of Philosophy degree in 1948. In 1956 he was appointed Assistant to President Elkins.

DR. GEORGE ENTWISTLE APPOINTED PROFESSOR OF PREVENTIVE MEDICINE AND REHABILITATION

Succeeds Dr. Maurice C. Pincoffs



DR. GEORGE ENTWISTLE

Dr. George Entwistle, formerly Assistant Professor of Medicine in the School of Medicine, was recently named Professor of Preventive Medicine and Rehabilitation, succeeding Dr. Maurice C. Pincoffs who recently retired.

A native of England, Dr. Entwistle received his collegiate education at the University of Massachusetts and his Doctor of Medicine degree from Boston University in 1948. He served his internship at the Massachusetts Memorial Hospital following which he was appointed a Fellow in the Boston University Department of Physiology, being promoted to Fellow in Medicine and Lecturer in Physiology in 1950.

Between 1951 and 1955 he held an assistant residency and later residency at the Evans Memorial Hospital in Massachusetts and was Instructor in Medicine at the Boston University School of Medicine. In 1956 he accepted his appointment at the University of Maryland and has since served actively in the Department of Medicine's Outpatient Clinic.

Dr. Entwistle is the author of papers concerning diabetes; cortisone therapy of early epidemic hemorrhagic fever and the treatment of cardiac arrhythmias in man. He has also contributed several papers on the pharmacologic and physiologic action of certain drugs on the mechanism of hypertension.

**DR. GOLDSTEIN REPORTS \$95,000 RECEIVED BY
GREATER UNIVERSITY FUND**

Dr. Albert E. Goldstein, General Chairman of the Greater University of Maryland Fund, recently reported a total of \$95,000 has been received by the University since the alumni giving program began in January, 1958. He noted that the figure represented gifts from more than 1800 alumni and friends of the University.

Contacts are being continued through a nation-wide regional organization with more than 27,000 being asked to enlist their participation in the first annual giving program.

Funds received during the 1958-59 year will support 4 major objectives including furnishings for the Student-Faculty-Alumni Center in Baltimore, academic scholarships, special book collections for the library at College Park, and the perpetuation of University traditions through a "Heritage Fund."

NOTICE OF MEETING

The eleventh annual scientific meeting of the Gerontological Society, Inc., will be held at the Bellevue Stratford Hotel, Philadelphia, Pennsylvania, November 6, 7, and 8, 1958.

DR. GEORGE THORN NAMED 1958 PINCOFFS LECTURER

Noted Educator to Speak Here December 15, 1958

The second Maurice C. Pincoffs Lecture in Internal Medicine will be given by Dr. George Thorn, Hersey Professor of Medicine at the Peter Bent Brigham Hospital, Boston. Dr. Thorn's topic will be "Adrenal Hyperfunction—Clinical Studies." The lecture will begin at 8:30 P.M. and will be held in Chemical Hall.

The Pincoffs lectureship in Medicine was established in 1957 by the Faculty in honor of Dr. Pincoffs and in commemoration of his 35 years as Professor of Medicine. Funds contributed by faculty, colleagues, friends and former students made the establishment of this lectureship possible.

The first guest lecturer was Dr. Joseph E. Smadel whose topic was "Quo Vadis Rickettsioses."

MEET THE EMERITI**WAITMAN F. ZINN**

DR. WAITMAN F. ZINN

Dr. Waitman F. Zinn was born in West Virginia in April, 1886. His father was a farmer in the region of Buchannon. Several generations of his progenitors were of sturdy West Virginia stock. Dr. Zinn is still loyal to and favors his native state. His early elementary and secondary education was in the public schools at Buchannon. Along with several brothers and sisters, he attended the State Teachers College at Glenville, West Virginia with the contemplated intent of school teaching as a profession, but in the last two years took the academic course in anticipation of a career in medicine. He graduated from the Glenville State Teachers College with an A.B. degree in 1907.

Young Zinn then matriculated at the University of West Virginia Medical School in Morgantown. This was a two-year school at the time and necessitated transfer for a degree in medicine. Dr. Zinn chose the College of Physicians and Surgeons of Maryland at Mercy Hospital for his clinical years in medicine, graduating in the class of 1911. He interned at Mercy Hospital during his senior year and spent the year of 1912 as surgical resident under Dr. John Chambers, at the same institution.

Dr. Zinn spent several years in general practice but his interest was soon turned toward diseases of the nose and throat. He did postgraduate work at Hopkins and connected himself with the out-patient clinics at Hopkins and Mercy Hospitals in this specialty. He taught at his alma mater, the College of Physicians and Surgeons, and was associate professor of Otolaryngology at the time of the amalgamation with the University of Maryland in 1916. He recounts

an interesting experience about this time that greatly influenced his subsequent career.

"A young boy had aspirated a shelled peanut and had been brought to the clinic. Dr. Zinn had struggled unsuccessfully in several hour-long attempts to extract the foreign body. In his persistence he called Dr. Chevalier Jackson in Philadelphia and accompanied the boy to Dr. Jackson's clinic. The master bronchoscopist extracted the peanut in one minute and 20 seconds." Dr. Zinn resolved then and there to work with Dr. Jackson and become as proficient as the master if possible. He spent some months at Jefferson Medical School under Dr. Chevalier Jackson in 1919. Returning to Baltimore he established a Bronchoscopic Clinic at Mercy Hospital that closely rivaled the Jackson Clinic in Philadelphia. His skill in bronchoscopy was unmatched locally.

In World War I Dr. Zinn volunteered his services. At the time of his physical examination a slight deficiency caused him to be deferred. He set about correcting this defect and returned monthly for six successive times before he was accepted and commissioned. He was assigned to Fort Oglethorp, Georgia, in the Otolaryngology section where he served for the remainder of the war.

Returning from the service, he became active in teaching as associate Professor of Otolaryngology. The Bronchoscopic Clinic at Mercy Hospital developed and expanded under Dr. Zinn's direction and became a local center for foreign body extraction from the airways and esophagus and for Residency training in this specialty. During World War II, Dr. Zinn was active on the medical advisory board to Selective Service.



Dr. Zinn has been quite a joiner, having an impressive list of memberships in societies and associations related to his specialty. He is an early diplomate of the American Board of Otolaryngology (1924) and a founding fellow of the International Broncho-esophagological Society. He was national president of the American Broncho-esophagological Association in 1933. He is also widely known in stock-breeding circles. Being a farm boy at heart, he acquired a stock farm when it was possible and has pursued this as a profitable hobby for many years. His registered cattle and hogs have taken many prizes. He was national president of the American Yorkshire Association. His son has taken over active control of these affairs in later years, but Dr. Zinn still maintains an active interest in stock breeding.

He has been twice married, in early life to Catherine Burgess, having a son by this marriage. After her death he remarried the widow of ex-Governor Nice. She died suddenly in Florida in 1955.

Dr. Zinn retired to an emeritus status at the medical school in 1953 and from the Bronchoscopic Clinic and Chief of the service at Mercy Hospital about the same time. He still remains active at his office in the Medical Arts Building when in Baltimore. He has a nice home in Fort Lauderdale, Florida, and spends about six months of the year there. He enjoys fishing and sailing in Florida waters and looks forward to entertaining his friends when they visit Florida. He lives at the Belvedere when in Baltimore.

Best regards to Dr. Waitman F. Zinn in his semi-retirement.

DEPARTMENT OF MEDICINE NOTES

Dr. Theodore E. Woodward, Professor of Medicine, reports the following activities among members of the Department of Medicine during the 1958-59 year.

Dr. Milton S. Sacks participated in a panel discussion on the tranquillizing drugs at the American College of Physicians Meeting, May 1, 1958.

Dr. Theodore E. Woodward also participated at the same meeting in a panel discussion on the newer agents for the treatment of infection.

Drs. Fred R. McCrumb, Jr., P. F. Guerin, G. K. Baer along with Dr. Woodward presented a paper entitled "Clinical and Pathologic Studies in Severe Asian Influenza Infections" at the annual meeting of the American Federation for Clinical Research held at Atlantic City, New Jersey, May 4, 1958.

Dr. Woodward participated in the Postgraduate Medical Assembly of South Texas on July 21, 1958, the meeting being held at Houston. Dr. Woodward discussed a number of important topics including "Chemotherapy of Infections"; "The Nature of Infections"; "Rickettsial Diseases of Man; Past and Present Status."

Dr. Woodward also participated in the International Congresses on Tropical Medicine at Lisbon, Portugal, on September 5-13, 1958, discussing "Prophylaxis and Therapy of Rickettsial Diseases."

Drs. Sheldon Greisman and **Charles Wisseman** presented a paper entitled "The Effects of Murine Typhus Toxin and Endotoxins on the Peripheral Vascular Circulation" at the Societe de Pathologie Exotique held in Paris, France.

Drs. Theodore E. Woodward, Charles Wisseman, George Entwistle, Fred R. McCrumb, Jr., Merrill J. Snyder, and Harry M. Robinson, Jr., have prepared a monograph on chloramphenicol to be published in the *Medical Encyclopedia*, New York, 1958.

Dr. Charles Van Buskirk presented a paper at the Maryland Academy of General Practice on May 8, 1958, entitled "Diagnosis and Management of Convulsive Disorders."

Drs. Leonard Scherlis, Samuel Bessman and Luis Gonzales presented a paper entitled "Myocardial Uptake and Coronary Sinus—Arterial Gradients of Quinidine Gluconate" at the Scientific Session of the Maryland Heart Association held November 15, 1957. Drs. Scherlis and Bessman presented the same paper at the Third World Congress held in Brussels, September, 1958.

UNIVERSITY HOSPITAL RESIDENT WINS NATIONAL AWARD



DR. WILLIAM C. COHEN

Dr. William C. Cohen, assistant resident in medicine, has recently been named winner of the American Diabetes Association Intern Essay Contest for 1957-58. The subject of Dr. Cohen's winning essay was "Severe Diabetic Neuropathy. A Case Study with Special Reference to the Autonomic Nervous System."

The award, an honorarium of \$50, is an annual event of the American Diabetes Association. Notice of the award will be carried in the September-October issue of *Diabetes*, the Association's journal. It is anticipated that the winning essay will ultimately be published in the journal.

DEPARTMENT OF PHARMACOLOGY***The Integration of the Teaching of Pharmacology into General Practice***

For several years the department of pharmacology of the School of Medicine of the University of Maryland has been conducting a series of group discussions or seminars with the students as a part of its teaching program. These seminars are known among the students as "pharmacology teas," since cigarettes, light refreshments and tea are served to create an atmosphere of informality. The seminars are held twice a week, with five or six staff members and four students. Several of the seminars are devoted to informal questioning of the students on the subject matter current in the course. In others, the students are assigned topics for the purpose of presenting a 15-minute lecture embracing a review of pertinent literature. For example, the subject of the origin and treatment of cough is typical of one of the seminars. Each student speaks on a special facet of the subject, such as etiology, signs, symptoms, and diagnosis; choice of drugs in treatment; mechanism of action of the drugs; and the prognosis under treatment.

Congestive heart failure was discussed in one session. The use and abuse of the ataractic drugs was the subject of another seminar. Pernicious anemia and its treatment was discussed at another seminar.

To contribute current clinical aspects to the discussion, for the past 2 years in the hospital the resident in medicine has attended all the seminars. Last year, through the office of Dr. Nathan E. Needle, President of the Maryland Academy of General Practice, two general practitioners were assigned to these seminars. These two busy physicians, Dr. Walter A. Anderson and Dr. Joseph S. Blum, willingly and enthusiastically accepted this assignment. They are introduced at each seminar to the students as representatives of the Maryland Academy of General Practice. These men are doing the job which most of our students hope to do. The students appear to be impressed by their presence. Drs. Anderson and Blum have also actively participated in the discussions. Their attitude has been friendly yet always critical, especially in the evaluation of new drug therapy. They speak out of their own current experience, and the students have been greatly benefited by their comments.

This has been a most gratifying experience for the students and the staff of the department of pharmacology. In addition, it has been profitable to the general practitioners, since they are kept abreast of current pharmacologic advance. The hours so spent are also accredited as postgraduate work by the Maryland Academy.

This most gratifying experience is recorded here so that others may establish this contact between the teaching of pharmacology, the residency program in medicine, and the general practitioner, which in this department has been a successful experiment.

DR. KRANTZ HONORED BY TWO SCIENTIFIC SOCIETIES

***Presented Honor Award by School of Pharmacy and Honorary Membership
in Maryland Dental Society of Anesthesiology***

Dr. John C. Krantz, Jr., Professor of Pharmacology, was recently honored by the School of Pharmacy of the University of Maryland, his Alma Mater. Dr. Krantz was presented the School's Annual Honor Award at its annual banquet.

Several days prior to the presentation of the Pharmacy Honor Award, Dr. Krantz was made an honorary member of the Maryland Dental Society of Anesthesiology. Dr. Krantz addressed the Dental Anesthesia group on "The Use of Indokolin in Mental Illnesses."



Dr. John C. Krantz, Jr., receives Dental Anesthesia Society's Honorary membership from Dr. Joseph Cappuccio, President. Left to right: Dean Myron S. Aisenberg of the Dental School, Dr. Cappuccio and Dr. Krantz.

**DEPARTMENT OF PATHOLOGY WINS HONORABLE MENTION
AT A.M.A. MEETING**

The Department of Pathology exhibit entitled "Let's Do Away with C.V.A.," prepared by the division of neuropathology, was awarded honorable mention by the Section on Nervous and Mental Diseases of the American Medical Association on the occasion of the annual meeting held in San Francisco in June, 1958.

DEPARTMENT OF PEDIATRICS**DR. GOOD APPOINTED ASSISTANT PROFESSOR OF PEDIATRICS**

DR. THOMAS ARNOLD GOOD

Dr. Thomas Arnold Good has recently been named Assistant Professor of Pediatrics in the School of Medicine.

A graduate of the University of Minnesota School of Medicine, he served his internship at the University of Minnesota hospitals and was Assistant Resident in Pediatrics at the same institution. Later he served as Chief Resident in Pediatrics at the University of Utah, after which he entered research in pediatrics at the same institution.

Since 1949 Dr. Good has conducted research relating to the mechanism of hypersensitivity reaction and mucoprotein. He has recently published studies on "The Effect of Salicylate and Butazolidin on Pituitary Adrenal Function in Guinea Pigs" and "Studies Concerning the Relationship of Phenylbutazone to Pituitary-Adrenal

Cortical Function and the Metabolism of 17-Hydroxycorticosteroids." He is particularly interested in arthritis and the metabolism of mucoproteins in infectious diseases.

Dr. Good is a member of Sigma Xi, The New York Academy of Sciences, The American Rheumatism Association and The Endocrine Society.

DR. BESSMAN ACTIVE IN EUROPEAN MEETINGS

Dr. Samuel P. Bessman was invited to participate in the International Congress of Biochemistry's Neurochemistry Symposium held in Vienna in September. Dr. Bessman also accepted an invitation to deliver several papers on ammonia metabolism and on diabetes at the Postgraduate School of the University of Louvain in Belgium in October.

DR. MERLIS ELECTED TO NATIONAL OFFICE



DR. JEROME K. MERLIS

Dr. Jerome K. Merlis, Professor of Clinical Neurophysiology and head of the Electroencephalographic Department of the School of Medicine, was recently elected secretary of the American Electroencephalographic Society.

**MR. WILLIAM G. HARNE HONORED BY UNIVERSITY
FOR MERITORIOUS SERVICE**



MR. WILLIAM G. HARNE

Special service awards for persons associated with the University's Baltimore Campus for ten years or more were presented at a ceremony on July 23, 1958.

Included among the 46 members of the Medical School and Hospital staffs who received awards was Mr. William G. Harne, a member of the Department of Pharmacology, School of Medicine, whose 35 years of continuous service were acknowledged by Dr. Wilson H. Elkins who presented the awards at a ceremony held in the University Hospital.

MARYLAND SOCIETY FOR MEDICAL RESEARCH NEWS***New Publication on Laboratory Animals Is Announced***

Through the Maryland Society for Medical Research, the Institute of Laboratory Animal Resources has announced the publication of a quarterly newsletter entitled *Information on Laboratory Animals for Research*. This is intended both for the animal breeder and the research worker using laboratory animals. According to the first number, the newsletter will contain information on Institute meetings, activities and publications, and news of American and foreign organizations interested in laboratory animals. Short technical notes, feature articles and editorials will also be contained in this quarterly.

Information on Laboratory Animals for Research is published by the Institute for Laboratory Animal Resources, National Academy of Sciences, National Research Council, 2101 Constitution Avenue, N.W., Washington 25, D. C., to which all inquiries should be directed.

**ANATOMY PROFESSORS CONTRIBUTE TO IMPORTANT
NEUROLOGIC SYMPOSIUM**

Drs. Walle Nauta and **Henricus Kuypers** of the Department of Anatomy (Neuro-anatomy) were contributors to a recent symposium on the subject of the Reticular Formation held at the Henry Ford Hospital.

This important volume, summarizing all available knowledge of a prominent area in the brain, will soon be published by Little, Brown and Company.

DEPARTMENT OF PHYSIOLOGY NOTES

Dr. John I. White of the department has been granted a Guggenheim Fellowship for an eight-month period of study in Europe. Dr. White is currently studying in Heidelberg with Dr. H. H. Weber. Later, Dr. White will work at Liege in Belgium with Dr. Gabriel Hamoir. The sojourn in Europe covered by a sabbatical leave will end in January, 1959, when he will return to his duties at the School of Medicine. Dr. White will continue his studies of the fibrous muscle proteins.

Dr. Frederick P. Ferguson recently served as Visiting Professor of Biology at the Graduate Summer School for Teachers at Wesleyan University in Middletown, Connecticut. Dr. Ferguson presented a course on "Topics in Modern Biology."

Dr. William R. Amberson, Professor of Physiology, is the author of an article entitled "The Influence of Fashion in the Development of Knowledge Concerning Electricity and Magnetism" which appeared in the *American Scientist* in March, 1958. This historical survey of early developments in our knowledge was read before a meeting of the Princeton Graduate Alumni in June, 1957.

UNIVERSITY OF MARYLAND
SCHOOL OF MEDICINE
BALTIMORE 1, MARYLAND

POSTGRADUATE CONFERENCE
IN MEDICINE

JANUARY 20-21-22, 1959

Presented by the Department of Medicine

*Sponsored by the Committee on Postgraduate
Courses and the Medical Alumni Association
of the University of Maryland*

CONFERENCE TO BE HELD IN THE UNIVERSITY HOSPITAL
LOMBARD AND GREENE STREETS • BALTIMORE 1, MD.

POSTGRADUATE CONFERENCE IN MEDICINE

The Committee on Postgraduate courses is pleased to announce the first in a series of programs to be presented by the Department of Medicine. The sole purpose of these conferences is to provide the practitioner of this area with the opportunity to refresh and reorient his knowledge. The success of these conferences, therefore, will be directly related to his participation and the presentation of his desire for future conferences.

The Medical Alumni Association of the University of Maryland is enthusiastic in offering its support to this program on postgraduate medicine. We hope that many of our alumni will take advantage of the opportunity of attending and participating in these presentations, and in the accompanying social functions.

These three-day conferences in medicine are designed to present, comprehensively, to the interested physician the current concepts of disease and the modern methods of diagnosis and control. The topics selected for discussion will be of general interest, and the basic underlying mechanisms of pathogenesis and physiologic alterations will receive full attention. The subject matter of each day's sessions will be demonstrated by the presentation of pertinent clinical material. Panel and group discussions will provide for broader coverage of the problems encountered in clinical medicine. Each series of conferences (to be held semi-annually) will cover at least three medical sub-specialties and occasionally more. Guest speakers who are regarded as authorities in their respective fields will feature the program.

A subcommittee appointed by Dr. Theodore E. Woodward, Professor and Head of the Department of Medicine, is responsible for formulating the program. These include:

Dr. William S. Spicer, Jr., Baltimore, <i>Chairman</i>	Dr. Harry M. Robinson, Jr., Baltimore
Dr. Charles H. Conley, Frederick	Dr. W. Alfred Van Orner, Cumberland
Dr. David S. Gilmore, Salisbury	Dr. Theodore E. Woodward, Baltimore
Dr. John H. Hornbaker, Hagerstown	Dr. Howard M. Bubert, <i>Chairman and</i>
Dr. Fred R. McCrumb, Jr., Baltimore	<i>Director of the Committee on Post-graduate Study</i>

GUEST FACULTY

John F. Enders, Ph.D.—Chief, Research Division of Infectious Diseases, Children's Medical Center, Boston, Massachusetts; Nobel Prize Winner, Medicine, 1956

Claude J. Migeon, M.D.—Assistant Professor of Pediatrics, Johns Hopkins School of Medicine, Baltimore, Maryland

Lawson Wilkins, M.D.—Professor of Pediatrics, Johns Hopkins School of Medicine, Baltimore Maryland

Joseph E. Smadel, M.D.—Associate Director, National Institutes of Health,
Bethesda, Maryland

Guest Lecturer in Hematology to be announced.

UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE FACULTY

Thomas B. Connor, M.D.—Associate Professor of Medicine

Harlan I. Firminger, M.D.—Professor and Head, Department of Pathology

Sheldon E. Greisman, M.D.—Assistant Professor of Medicine

Arthur L. Haskins, M.D.—Professor and Head, Department of Obstetrics and
Gynecology

Fred R. McCrumb, Jr., M.D.—Assistant Professor of Medicine

Maurice C. Pincoffs, M.D.—Professor Emeritus of Medicine

Milton S. Sacks, M.D.—Professor of Clinical Medicine

Merrill J. Snyder, Ph.D.—Assistant Professor of Medicine

Carroll L. Spurling, M.D.—Assistant Professor of Medicine

Charles L. Wisseman, M.D.—Professor and Head, Department of Microbiology

John G. Wiswell, M.D.—Associate Professor of Medicine

Theodore E. Woodward, M.D.—Professor and Head, Department of Medicine

Joseph B. Workman, M.D.—Assistant Professor of Medicine

PROGRAM

TUESDAY, JANUARY 20, 1959

8:30 Registration Room 171 Psychiatric Institute

9:15 Introductory Remarks Dr. William S. Spicer, Jr.

ENDOCRINE—METABOLIC DISEASES

MORNING SESSION—*Moderator*, DR. JOHN G. WISWELL

9:30 Present Day Management of Hyperthyroidism Dr. Workman

10:00 Laboratory Aids in the Diagnosis of
Adrenal Cortical Disorders Dr. Migeon

10:55 Coffee

11:10 Renal Calculous Disease (Primarily a medical problem) Dr. Connor

11:45 Case Presentations

12:30 Luncheon (Place to be announced)

AFTERNOON SESSION—*Moderator*, DR. THOMAS B. CONNOR

- 2:00 The Diagnosis and Treatment of Hypopituitarism . . . Dr. Wiswell
- 2:30 Gonadal Dysgenesis and Hermaphroditism—
Their Relation to Theories of Sex Differentiation . . . Dr. Wilkins
- 3:25 Coffee
- 3:40 The Diagnostic Approach to Amenorrhea . . . Dr. Haskins
- 4:10 Question and Answer Period . . . Drs. Wilkins, Haskins, Wiswell,
Workman, Connor
- 5:30 Social Hour (Place to be announced) . . . Compliments, Medical
Alumni Association

WEDNESDAY, JANUARY 21, 1959

INFECTIOUS DISEASES**MORNING SESSION—***Moderator*, DR. THEODORE E. WOODWARD

- 9:25 Introductory Remarks . . . Dr. Woodward
- 9:30 Hypersensitivity and the Inflammatory Reaction . . . Dr. Greisman
- 10:00 Tissue Culture: Its Application to the
Study of Human Disease . . . Dr. Enders
- 10:55 Coffee
- 11:10 Coxsackie and ECHO Viruses in Human Disease . . Dr. McCrumb
- 11:40 Case Presentations
- 12:30 Luncheon (Place to be announced)

AFTERNOON SESSION—*Moderator*, DR. FRED R. MCCRUMB

- 2:00 Antibiotic Resistant Infections . . . Dr. Snyder
- 2:25 Current Problems of Immunization . . . Dr. Smadel
- 3:20 Coffee
- 3:35 Host Response to Infection and Treatment . . . Dr. Woodward
- 4:10 Panel Discussion: Immunoprophylaxis of Disease
1. Adenovirus 3. Influenza
2. Poliomyelitis 4. Measles . . . Drs. Enders, Smadel, McCrumb,
Wissemann, Woodward
- 7:00 Banquet (Place to be announced) . . . *Speaker*—Dr. John Enders

MORNING SESSION

HEMATOLOGY

10:30	Introductory Remarks	Dr. Sacks
10:35	The Anemias: Radioisotopes in Diagnosis Immunohematologic Methods. Case Presentations	Dr. Sacks
12:30	Luncheon (Place to be announced)	

AFTERNOON SESSION

1:45	Current Aspects of the Diagnosis and Management of Leukemias and Lymphomata . . . (Guest Lecturer to be announced)
3:15	Hemorrhagic Disorders: Basic Concepts Case Presentations Dr. Spurling
4:30	Questions and Answer Period All Participants

REGISTRATION AND FEE

Advance registration is requested. Return the registration sheet in this BULLETIN, see other side of this page.

A fee of \$50.00, submitted with the application for registration, includes the banquet and luncheons for the 3-day session. Enrollment for 1 or 2 days of the course will be accepted with a fee of \$17.00 per day and does not include the banquet cost (\$5.00), which must be paid separately.

COMMITTEE ON POSTGRADUATE COURSES
UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE
522 West Lombard Street
Baltimore 1, Maryland

APPLICATION FOR
POSTGRADUATE CONFERENCE IN MEDICINE
JANUARY 20-21-22, 1959

NAME		AGE
ADDRESS		TELEPHONE
DEGREE: WHERE AND WHEN OBTAINED		TYPE OF PRACTICE ENGAGED IN
LICENSED TO PRACTICE IN STATE OF		
*	*	*
*	*	*

Do you desire card certifying attendance, to be issued at conclusion of course? ☐ Yes ☐ No

Do you desire hotel reservations at the Lord Baltimore Hotel? ☐ Yes ☐ No

Date of arrival Departure.....
(The Committee will make the reservation and have hotel notify you)

Do you plan to attend the full 3-day Conference? ☐ Yes ☐ No

Do you plan to attend 1st day? ☐ Yes ☐ No
2nd day? ☐ Yes ☐ No
3rd day? ☐ Yes ☐ No

Tuition fee should accompany the application. Make checks payable to:
Postgraduate Committee, University of Maryland School of Medicine

Postgraduate Committee, University of Maryland School of Medicine
522 West Lombard Street, Baltimore 1, Maryland

Tuition Fee for full conference	\$50.00
Tuition Fee for single day	\$17.00 (\$5.00 extra for banquet)

REGISTRATION CLOSES JANUARY 10, 1959.

MAXIMAL REGISTRATION: 100

POST GRADUATE COMMITTEE SECTION

POSTGRADUATE COMMITTEE, SCHOOL OF MEDICINE

HOWARD M. BUBERT, M.D., *Chairman and Director*

ELIZABETH B. CARROLL, *Executive Secretary*

Postgraduate Office: Room 201

Old Medical Building, Lombard and Greene Streets

Baltimore 1, Maryland

The Postgraduate Committee is pleased to announce that it has planned a course in Industrial Medicine designed to be of interest to physicians, nurses, plant personnel managers and safety engineers. The course is scheduled for Thursday, October 16, and Thursday, October 23, 1958, in Chemical Hall. Registration fee for the two-day course is \$20.00; for one day, \$10.00. Luncheon is included. The program, we believe, is an interesting one, with a faculty outstanding in the field, and we are looking expectantly to a large attendance. Any questions concerning the course should be addressed to the Postgraduate Committee office.

OCTOBER 16, 1958

- 9:00- 9:45 A.M. Registration Postgraduate Committee Office
- 9:45- A.M. Introduction: Dr. Howard M. Bubert, Chairman and Director, Postgraduate Committee
- 9:50- A.M. Moderator: Dr. William S. Stone, Dean
- 10:00-12:30 P.M. *Cardiac Disease in Industry*
- Panel: Dr. Leonard J. Goldwater, Professor of Occupational Medicine, Columbia University School of Public Health and Administrative Medicine of the Faculty of Medicine, New York City
- Dr. Charles S. Franco, Associate Medical Director, Consolidated Edison Company, New York City
- Mr. G. Hudson Quarles, Director of Industrial Relations, Black and Decker Manufacturing Company, Towson
- 12:30- 1:30 P.M. Luncheon
- 1:30- 4:00 P.M. *The General Practitioner in Industrial Medicine*
- Moderator: Dr. C. Reid Edwards, Professor of Surgery, University of Maryland School of Medicine
- Panel: Mr. Albert D. Gillis, Health Education Officer, Social Security Administration

Dr. Charles P. Crimy, Member of Maryland Academy of General Practice

Dr. Charles R. Reifschneider, Clinical Professor of Traumatic Surgery, University of Maryland School of Medicine

OCTOBER 23, 1958

- 9:00- 9:45 A.M. Registration Postgraduate Committee Office
- 9:45- A.M. Introduction: Dr. Howard M. Bubert
Moderator: Dr. Stanley J. Bociek, Plant Surgeon, Bethlehem Sparrows Point Plant Hospital
- 10:00-10:20 A.M. *Function of Governmental Groups in Occupational Health*
Dr. Harold J. Magnuson, Chief, Occupational Health Program, Div. of Special Health Services, Washington, D. C.
- 10:25-10:45 A.M. *Radiation—Where It Comes from and How to Minimize Exposure Thereto*
Dr. C. W. Shilling, Deputy Director Div. of Biology and Medicine, Atomic Energy Commission, Washington, D. C.
- 10:50-11:10 A.M. *Utilization of the Abilities of Older Individuals in Industry*
Dr. Louis A. M. Krause, Professor of Clinical Medicine, University of Maryland School of Medicine
- 11:15-12:30 P.M. *Medico-Legal Aspects in Industrial Medicine*
Dr. James Frenkil, Chairman of the Medical Board, State Industrial Accident Commission of Maryland
Mr. L. Whiting Farinholt, Professor of Law and Director of Maryland Medical Legal Institute
- 12:30- 1:30 P.M. Luncheon
- 1:30- 4:00 P.M. *The Role of Doctor, Nurse, Management and Industrial Hygienist in Industrial Medicine*
Moderator: Dr. Howard M. Bubert
Panel: Dr. Walter E. Fleischer, Medical Director, Armco Steel Corporation
Miss Margaret Kramer, R.N., Plant Nurse, Calvert Distilling Company
Mr. J. Melvin Schemm, Superintendent of Personnel, American Smelting and Refining Company
Mr. George Reichenbach, Industrial Hygiene Engineer, Bethlehem Steel Company, Sparrows Point

The audience will be given opportunity to ask questions of the panel members.

* * * * *

Acceptable for Category I Credit by American Academy of General Practice.

APPLICATION BLANK

Name
(PLEASE PRINT OR TYPE)

Address

Company represented (if any)

I enclose (check or money order):

\$20.00 Full payment for 2-Day Course (October 16 and 23)

10.00 Full payment for 1-Day Course (October 16)

10.00 Full payment for 1-Day Course (October 23)

(Luncheon is included)

.....
DATE

.....
SIGNATURE OF APPLICANT

Please return to Postgraduate Office
University of Maryland School of Medicine
522 West Lombard Street
Baltimore 1, Maryland

Please make check payable to Postgraduate Committee, University of Maryland School of Medicine.

POSTGRADUATE MEDICAL SEMINAR

Elsewhere in this issue of the BULLETIN is the program for a postgraduate course in Medicine which will be given in January, 1959.

BASIC SCIENCES AND CLINICAL ANATOMY

The Postgraduate courses, "Basic Sciences As They Apply to the Practice of Medicine" and "Clinical Anatomy," are to be repeated, beginning in January, 1959. The Basic Science course is a 42-hour course given from 4:00-6:00 P.M. on Wednesdays. Clinical Anatomy is a 90-hour course given for 3 hours on Monday afternoons and Wednesday mornings for 15 weeks. There will be a few changes made in the schedule of the Basic Science course. Full information may be obtained from the office of the Postgraduate Committee.

Single Copies of Bulletin are Available

Back numbers of many volumes of the Bulletin of the School of Medicine are available.

An inquiry will be promptly acknowledged. Copies in stock can be purchased at \$2.00 per volume (single copies \$.50) as long as they last. All issues postpaid.

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Baltimore 1, Maryland

ALUMNI



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* July 1, 1958 to June 30, 1959

ALUMNI PRESIDENT'S LETTER



HARRY M. ROBINSON, JR., M.D.

Dear Fellow Alumni:

It gives me a great deal of pleasure to tell you that at the present time our membership roster is longer than it has been in many years. Every graduate of our school should retain his or her membership in the Medical Alumni Association.

If you have read your copy of the Annual Report of the School of Medicine, you will appreciate the tremendous advances being made in undergraduate and graduate medical education and the fruitful research program in progress in every department and division. Membership in the Medical Alumni Association is evidence of your interest in the welfare of our Alma Mater and entitles you to voice your opinions in important matters affecting the future of our institution.

The Medical Alumni Association is co-sponsor of a Medical Postgraduate Seminar which will be presented in January, 1959, the full details of which will be found elsewhere in this issue. The content of the program, both scientific and social, is of the highest calibre and definitely merits your interest and support. We will have an Alumni party on the first night of the three-day meeting. An oyster roast is planned, compliments of our Association, and all alumni are invited to attend.

In subsequent issues of the BULLETIN we are going to publish summaries of the actions taken by your Board of Directors. As soon as the books are audited, a financial statement will be issued.

Wetherbee Fort is Chairman of the new Student Loan Fund Committee and acting with him are Ford Loker and D. McClelland Dixon.

John Hornbaker, C. Vernon Williamson, and Frank Leslie have been appointed by the Board to the Editorial Board of the BULLETIN.

Please send us news of your fellow alumni so that it can be published in the BULLETIN. Dr. John Wagner, our Editor, has a new and energetic Editorial Board to give him the support he needs in producing the kind of journal which will reflect credit on the school and the Medical Alumni Association. We will welcome any suggestions for improvement.

If you have not paid your dues, please do so and keep the Association on sound financial ground.

Sincere personal regards to all of you.

HARRY M. ROBINSON, JR., M.D.
President

DEAN AND ALUMNI ASSOCIATION REORGANIZE EDITORIAL BOARD OF BULLETIN

In an announcement issued jointly by Dr. William S. Stone, Dean and Dr. Harry M. Robinson, Jr., President of the Medical Alumni Association, a new Editorial Board for the BULLETIN OF THE SCHOOL OF MEDICINE was created.

In a letter to all former members of the Board who have served since its reorganization in 1950, Dean Stone wrote in part: "In the future, the BULLETIN OF THE SCHOOL OF MEDICINE OF THE UNIVERSITY OF MARYLAND will be a joint publication of the Medical Alumni Association and the School of Medicine—this Board will be made up of three members nominated by the Medical Alumni Association and three members appointed by the School of Medicine.

"In view of these changes, it is necessary to honorably discharge the present Editorial Board of the BULLETIN. We wish to express the appreciation of the School of Medicine for the work you have done."

Dr. Harry M. Robinson, Jr., President of the Medical Alumni Association, announced the appointment of Drs. John Hornbaker, V. Vernon Williamson, and Franklin Leslie as Alumni Association representatives to the Editorial Board of the BULLETIN. Dean Stone appointed Drs. John C. Krantz, Jr., Professor of Pharmacology, William H. Mosberg, Jr., Associate in Neurological Surgery, and George Entwistle, Professor of Preventive Medicine and Rehabilitation.

Dr. Stone and Dr. Robinson will serve as ex-officio members of the Board. Dr. John A. Wagner will continue to serve as Editor. It is expected that the new Board will meet quarterly, the first regular meeting being in October, 1958.

JUNE WEEK CLOSES 151ST ACADEMIC YEAR

Both Undergraduate and Postgraduate Activities Most Successful

June Week of 1958 was officially opened on Thursday, June 5, with Alumni Day. Following registration in the hall of the Old Medical Building (recently named Davidge Hall) alumni assembled in Chemical Hall for a brief address by Dr. Thomas B. Turner, class of 1925, and currently Dean of the Johns Hopkins School of Medicine. Dr. Turner was then followed by Dr. Norman T. Kirk, Maj. Gen., USA, MC (retired), and formerly Surgeon General of the United States Army during World War II. Dr. Kirk was presented the annual Alumni Honor Award and Gold Key for "outstanding contributions to medicine and distinguished service to mankind." Dr. Kirk spoke very briefly following the presentation ceremonies.

Dr. Robert W. Buxton, Professor of Surgery in the School of Medicine, then presented a discussion on some of the research in anesthesiology currently in progress at the School of Medicine, demonstrating with some of the newly devised and somewhat experimental apparatus. This was followed by a formal meeting of the Medical Alumni Association at which time the new Constitution and By-Laws proposed were adopted with some amendments. The annual meeting was followed by a luncheon in the Gymnasium of the Psychiatric Institute of the University Hospital.

In the afternoon a number of class meetings were held among which were the classes of 1928 and 1938.

The annual banquet was attended by more than 400 alumni. Dr. Harry M. Robinson, Jr., the incoming president of the Medical Alumni Association, welcomed the class of 1958. Following this, the members of the class of 1908 were presented their fifty-year certificates. Honored guests included Governor and Mrs. Theodore R. McKeldin, Dr. and Mrs. William S. Stone, Dr. and Mrs. Albin O. Kuhn, Dr. and Mrs. Ladislaus F. Grapski and Dr. and Mrs. John W. Barnard, Dr. Barnard offering the Invocation.

The following alumni registered during Alumni Day activities:

1895

Nicholas G. Wilson

1897

Lucius C. Glenn

1898

B. W. Fassett

1903

Edgar B. Friedenwald

1908

J. Leland Anderson

Lawrence Kolb

Herbert J. Rosenberg

Clyde W. Conn

Ralph G. Reed

Benjamin Ulanski

1909

Harry M. Robinson, Sr.

1910

George C. Coulbourne

John G. Runkel

J. A. Thomason

1911

William H. Triplett

1912

C. Loring Joslin

1913

W. Houston Toulson

Charles Reid Edwards

N. J. Gould

1914

John F. Lutz

Austin H. Wood

1915

William R. Johnson

1916

Henry F. Buettner

1920

Howard M. Bubert

Louis C. Dobihal

J. Morris Reese

1923

Joseph Gutowski

Arthur M. Kraut

Richard Schorr

Philip Hirsch

Karl J. Myers

W. H. Shealy

George Knipp

Andrew Povalski

Theresa O. Snaith

T. Joseph Touhey

Henry Weinert

1924

Clewell Howell

1925

M. Paul Byerly	Arthur A. Cope	J. Sheldon Eastland
Joseph Nataro	Thomas B. Turner	

1926

Margaret B. Ballard

1927

T. Nelson Carey	E. Eugene Covington	A. H. Finkelstein
	Frank K. Morris	

1928

Bernard Friedman	Vincent M. Maddi	Peter Pileggi
Lewis P. Gundry	Robert S. McCeney	Joseph R. Rutter
Maurice Levinsky	Frank A. Merlina	Morris F. Saffron
A. B. Lyon	Aaron H. Meister	Robert Sardo
	C. Gardner Warner	

1930

Kenneth L. Benfer

1931

Walter Kohn	William M. Seabold	Arthur G. Siwinski
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1932

S. Evans Ganz	Arthur Karfgin
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1933

Martin Becker	Frank A. Franklin	Leon Kochman
M. Marvin Cohen	Albert J. Himelfarb	Benjamin M. Miller
Richard W. Comegys	Myron L. Kenler	Kernit E. Osserman
Meyer Etkind	Lauriston L. Keown	Daniel R. Robinson
Joseph Fineman	Charles Kimmel	Alec Schwartz
	John L. Van Metre	Saul Zager

1934

Milton S. Sacks	Benjamin I. Siegel	John N. Snyder
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1935

Ernest I. Cornbrooks, Jr.	Howard B. Mays	Karl F. Mech
	Harry M. Robinson, Jr.	

1936

Walter E. Karfgin	W. Kennedy Waller	Gibson J. Wells
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1937

Everett S. Diggs	Isadore Kaplan	William B. Long, Jr.
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1938

Victor Dolfman	Sydney Scherlis	Donald J. Silberman
Aaron Feder	Robert A. Schlesinger	Aaron Stein
Lester I. Fox	John M. Scott	Bernard O. Thomas, Jr.
Louis E. Goodman	Robert C. Sheppard	Winfield L. Thompson
Gerald Kurtz	Edward Siegel	John A. Wagner
Celeste L. Woodward	Theodore E. Woodward	

1939

Dexter L. Reimann

1940

Edmund Beacham	James R. Karns	Raymond C. V. Robinson
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1941

Elizabeth B. Sherrill	John D. Young, Jr.
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1942

Theodore Kardash	E. Roderick Shipley
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1943

Elizabeth Acton	F. Stanley Hassler	A. Allan Spier
Ruth W. Baldwin	J. Emmett Queen	Robert E. Wise
Robert Z. Berry	Josephine Renshaw	Arthur O. Wooddy

1944

Ernest G. Guy	R. Carroll Hayden	Carl W. Patterson
Charles E. Shaw	F. X. Paul Tinker	

1948

James B. Dalton	J. Patterson Mack	Kyle Y. Swisher
Frank P. Dwyer, Jr.	Nicholas Mallis	Frank J. Theuerkauf, Jr.
Richard L. Hobart	James L. Rhyne	Clark A. Whitehorn
Katherine V. Kemp	Benjamin K. Silverman	J. D. Wilson

1951

Aubrey D. Richardson

1952

David E. Graham	Norton Spritz
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1953

Grace A. Bastian	Joseph P. Gillotte	Lewis C. Richmond, Jr.
Joseph R. Bove	G. Overton Himmelwright	Robert T. Singleton
Leonard H. Flax	Rafael Longo-Cordero	William P. Templeton
	Arnold S. Vance	

1954

David A. Levy

1956

Richard L. Plumb

1957

John T. Bulkeley

Faculty

Monte Edwards

Frank H. J. Figge

M. Haque

Maurice C. Pincoffs

PRE-COMMENCEMENT CONVOCATION

At 2:30 P.M. on Friday, June 6, the Pre-Commencement Exercises were held on the campus south of the University Hospital. Members of the Faculty and student body, appropriately gowned, marched in an academic procession to the ceremony which was opened by the invocation offered by the Reverend Bruce McDonald, Pastor of Westminster Presbyterian Church.

Dr. Albin O. Kuhn, Executive Vice-president of the University of Maryland, then extended greetings to the graduating class and was followed by Dean Stone. Dr. Stone then presented awards to the honor graduates who are as follows:

FACULTY GOLD MEDAL

William Joseph Hicken

CERTIFICATES OF HONOR

Gilbert Bernard Cushner

Gerald Edward Bloom

William John Marshall, Jr.

Howard Daniel Bronstein

Robert Harvey Johnson, Jr.

Granger Gideon Sutton, Jr.

DR. LEONARD M. HUMMEL MEMORIAL AWARD

GOLD MEDAL—INTERNAL MEDICINE

Raymond Joseph Donovan, Jr.

DR. A. BRADLEY GAITHER MEMORIAL PRIZE

FOR BEST WORK IN G.U. SURGERY

Charles Eliot Silberstein

DR. HARRY M. ROBINSON, SR., AWARD

DERMATOLOGY

John Thomas Alexander

Following the presentation of the awards, Dr. Stone then administered the Oath of Hippocrates to the graduates.

This was followed by an address entitled "Future Trends in Medical Education" which was delivered by Dr. Colin McLeod, Professor of Research Medicine of the University of Pennsylvania School of Medicine.

The ceremonies were concluded with a tea served on the grounds and sponsored by the Woman's Auxiliary of the Student American Medical Association, University of Maryland Chapter.

On Saturday, June 7, members of the class of 1958 officially received their diplomas from the hand of Dr. William S. Stone, Dean.

The following is a roster of graduating class of 1958, their home state and city and the hospital where they will spend their internships.

RECIPIENTS OF THE DEGREE OF DOCTOR OF MEDICINE, 1958

- Alexander, John Thomas—Phoenix, Ariz. (White Memorial Hospital, Los Angeles, Calif.)
- Alton, James Keyes, Jr.—St. Petersburg, Fla. (Medical College of S. C., Charleston, S. C.)
- Bartlett, William G.—Cumberland, Md. (Youngstown Hospital, Youngstown, Ohio)
- Baumgardner, George Robert—Taneytown, Md. (University Hospital, Baltimore, Md.)
- Berg, Elliott Morton—Baltimore, Md. (University Hospital, Baltimore, Md.)
- Berman, Maurice Jerrold—Baltimore, Md. (Mercy Hospital, Baltimore, Md.)
- Bloom, Gerald Edward—Annapolis, Md. (William Beaumont Army Hospital, El Paso, Tex.)
- Brager, Stuart Harmon—Baltimore, Md. (University Hospital, Baltimore, Md.)
- Bronstein, Howard Daniel—Baltimore, Md. (Mt. Sinai Hospital, New York, N. Y.)
- Burke, George James—Baltimore, Md. (Mercy Hospital, Baltimore, Md.)
- Caplan, Raymond Frank—Baltimore, Md. (Sinai Hospital, Baltimore, Md.)
- Chun, Gayne—Honolulu (The Queens Hospital, Honolulu, Hawaii)
- Clark, Gaylord Lee, Jr.—Stevenson, Md. (University Hospital, Baltimore, Md.)
- Cope, David Arthur—Hamburg, Penna. (Reading Hospital, Reading, Penna.)
- Cranley, Robert Emmet, Sr.—Orange, N. J. (University Hospital, Baltimore, Md.)
- Curtis, Bruce Nelson—Thatcher, Ariz. (Good Samaritan Hospital, Phoenix, Ariz.)
- Cushner, Gilbert B.—Baltimore, Md. (Sinai Hospital, Baltimore, Md.)
- Damm, Robert Lee—Clifton Heights, Penna. (D. C. General Hospital, Washington, D. C.)
- Diener, Ronald Lee—Baltimore, Md. (Sinai Hospital, Baltimore, Md.)
- Donovan, Raymond Joseph, Jr.—Cliffside Park, N. J. (University Hospital, Baltimore, Md.)
- Economou, Joanne (Winslow)—Arlington, Va. (Mercy Hospital, Baltimore, Md.)
- Erickson, Richard James—Wood Ridge, N. J. (Edward J. Meyer Memorial, Buffalo, N. Y.)
- Farb, Stanley Norman—Baltimore, Md. (Sinai Hospital, Baltimore, Md.)
- Filar, Alfred Anthony, Jr.—Baltimore, Md. (Mercy Hospital, Baltimore, Md.)

- Fishkin, Harold Larry—Baltimore, Md. (Brooklyn Hospital, Brooklyn, N. Y.)
Fitch, Harry John—Silver Spring, Md. (Mercy Hospital, Baltimore, Md.)
Flynn, Richard Rowan—Salt Lake City, Utah (University of California, San Francisco, Calif.)
Friedlander, Harvey Lee—Baltimore, Md. (William Beaumont Army Hospital, El Paso, Tex.)
Goldberg, Neil Morton—Baltimore, Md. (Mercy Hospital, Baltimore, Md.)
Goldgeier, Sheldon—Baltimore, Md. (Sinai Hospital, Baltimore, Md.)
Goldstein, Barrett—Baltimore, Md. (Sinai Hospital, Baltimore, Md.)
Greene, Frank Philip—Silver Spring, Md. (University Hospital, Baltimore, Md.)
Hale, Meredith Saffell—Reisterstown, Md. (William Beaumont Army Hospital, El Paso, Tex.)
Hall, William Popplein, 3d—Baltimore, Md. (Los Angeles City Hospital, Los Angeles, Calif.)
Harshey, John Simpson—Jeannette, Penna. (Youngstown Hospital, Youngstown, Ohio)
Heck, Albert Frank—Baltimore, Md. (Mercy Hospital, Baltimore, Md.)
Hicken, William Joseph—Baltimore, Md. (University Hospital, Baltimore, Md.)
Holmes, Arthur Clark Loper—Smithfield, Penna. (Mercy Hospital, Baltimore, Md.)
Johnson, Robert Harvey, Jr.—Princess Anne, Md. (University Hospital, Baltimore, Md.)
Karpa, Jay Norman—Baltimore, Md. (Sinai Hospital, Baltimore, Md.)
Keller, Richard Hubbard—Ogden, Utah (Salt Lake County General Hospital, Utah)
Kelsh, James Michael—Frederick, Md. (Letterman Army Hospital, San Francisco, Calif.)
Kelso, James Jude—Linthicum, Md. (Youngstown Hospital, Youngstown, Ohio)
Kriz, Frank Kenneth, Jr.—Towson, Md. (William Beaumont Army Hospital, El Paso, Tex.)
Levin, Daniel Melvin—Baltimore, Md. (University Hospital, Baltimore, Md.)
Levin, Howard Stanley—Baltimore, Md. (University Hospital, Baltimore, Md.)
Litofsky, Arthur—Baltimore, Md. (Sinai Hospital, Baltimore, Md.)
Macon, Robert Carpenter—Washington, D. C. (Washington Hospital Center, Washington, D. C.)
Manger, Donald Frederick—Baltimore, Md. (University Hospital, Baltimore, Md.)
Marshall, William John, Jr.—Zanesville, Ohio (Philadelphia General Hospital, Philadelphia, Penna.)
McInerney, Gerald Timothy—Niagara Falls, N. Y. (Edward J. Meyer Memorial, Buffalo, N. Y.)
Mead, Joseph Anthony, Jr.—Baltimore, Md. (Mercy Hospital, Baltimore, Md.)

- Merendino, John Jerome—Silver Spring, Md. (D. C. General Hospital, Washington, D. C.)
- Moore, Ernest Eugene—Hinton, W. Va. (Medical College of S. C., Charleston, S. C.)
- Mulvaney, Robert Bernard Joseph—Newark, N. J. (Harrison S. Martland Hospital, Newark, N. J.)
- Ortel, Roy Wade—Baltimore, Md. (Graduate Hospital, Philadelphia, Penna.)
- Orth, John Goedeke—Baltimore, Md. (Mercy Hospital, Baltimore, Md.)
- Ottinger, Ayland Midgley—Magna, Utah (University of Oregon Medical School, Portland, Oreg.)
- Parker, Charles Edwin—Roseville, Calif. (Madigan Army Hospital, Takoma, Wash.)
- Perez-Santiago, Antonio—Puerto Rico (San Juan City Hospital, Puerto Rico)
- Potash, Michael Donald—Silver Spring, Md. (Sinai Hospital, Baltimore, Md.)
- Rauh, Jay Thomas—Millers, R.D., Md. (University Hospital, Baltimore, Md.)
- Reeder, Maurice Merrick—Baltimore, Md. (William Beaumont Army Hospital, El Paso, Tex.)
- Richmond, Lewis Hilliard—Baltimore, Md. (Brooke Army Hospital, San Antonio, Tex.)
- Robl, Robert Joseph—Baltimore, Md. (U. S. Naval Hospital, Portsmouth, Va.)
- Roll, Harold—Baltimore, Md. (University Hospital, Baltimore, Md.)
- Shepperd, J. Douglass, Jr.—Baltimore, Md. (D. C. General Hospital, Washington, D. C.)
- Silberstein, Charles Eliot—Baltimore, Md. (Jefferson Medical Hospital, Philadelphia, Penna.)
- Swanson, Raymond Elmer—Chicago, Ill. (Detroit Memorial Hospital, Detroit, Mich.)
- Sutton, Granger Gideon, Jr.—Washington, D. C. (Brooke Army Hospital, San Antonio, Tex.)
- Taylor, James E., Jr.—Hampstead, Md. (USPHS Marine Hospital, Baltimore, Md.)
- Tilles, Jerome—Baltimore, Md. (University Hospital, Baltimore, Md.)
- Tyer, James Harold—Bridgeport, Conn. (St. Vincents Hospital, New York, N. Y.)
- Ward, William Todd—Chevy Chase, Md. (Colorado General Hospital, Denver, Colo.)
- Weyn, Adrian Saltzman—Hagerstown, Md. (Mercy Hospital, Baltimore, Md.)
- Wolfe, Richard Louis—Towson, Md. (Johns Hopkins Hospital, Baltimore, Md.)
- Zieve, Philip David—Baltimore, Md. (Baltimore City Hospital, Baltimore, Md.)
- Zimmerman, James Benson—Alexandria, Ohio (Miami Valley Hospital, Fla.)



Seen on Alumni Day (l to r): Dr. John M. Dennis, class of 1945, Dr. Charles Reid Edwards, class of 1913, Dr. Ernest Guy, class of 1944.



Dr. Eduard Uhlenhuth and former student, Dr. Katherine Kemp, class of 1948.



Principals on Alumni Day (l to r): Maj. Gen. Norman T. Kirk (Surgeon General, USA, ret'd), recipient of Alumni Honor Award and Gold Key, Dr. Thomas B. Turner, class of 1925 and Dean of Johns Hopkins University School of Medicine, Dr. William S. Stone, Dean of the School of Medicine, Dr. Harry M. Robinson, Jr., class of 1935, and President of the Medical Alumni Association.



Dr. William B. Long, Jr., retiring President of the Medical Alumni Association, presents Honor Award and Gold Key to Dr. Norman T. Kirk.



Dr. Robert W. Buxton speaks on anesthesia developments to Medical Alumni Association.



Alumni Luncheon—1958.



Address by Dr. William S. Stone outlining progress in the School of Medicine.



Members of the class of 1938 return for 20th reunion. First row, l to r: Drs. Albert Winer, Gerald Kurtz, Aaron Fader, John Scott, John Wagner, Winfield Thompson; 2nd row, l to r: Edward Siegel, Victor Dolfman, Lester Fox, Robert Sheppard, Theodore Woodward, Sidney Scherlis; 3rd row, l to r: Arthur Milholland, Celeste Woodward, Mrs. Robert Schlesinger, Robert Schlesinger, Harold Colleran.



Class of 1933. Seated, 1st row, 1 to r: Drs. Keown, Franklin, Sager, Becker, Kenler; 2nd row, 1 to r: Drs. Fineman, Kochman; standing, 1 to r: Drs. Etkind, Van Metre, Schwartz, Miller, Kimmel, Comegys, Himelfarb, Cohen.



Academic Procession—Pre-Commencement Exercises.



Dean Stone presents honors to class of 1958.



Pre-commencement Exercises are held on lawn south of University Hospital.

MARYLAND ALUMNI TO MEET AT S.M.A. CONVENTION

On the occasion of the 1958 session of the Southern Medical Association to be held in New Orleans, November 3-6, 1958, the Medical Alumni Association will sponsor an Alumni Reunion, this time under the direction of Dr. Caesar F. Orofino of the Ochsner Clinic, New Orleans.

Those who attended the 1957 Session of the Southern Medical Association held in Miami Beach will remember the most successful reception held on that occasion. This year a cocktail party and buffet supper are being planned for the evening of November 4 at the Roosevelt Hotel.

As has been customary, a registration desk will be maintained in the outer lobby of the Convention Headquarters by the Medical Alumni Association. Those who desire to attend the meeting should enter their registration as promptly as possible at the beginning of the Convention.

Details of the entire program will be mailed to those physicians in the Southern States as soon as the program has been completed.

ALUMNI REUNION IN ASHEVILLE, NORTH CAROLINA

Maryland alumni and their ladies who were in Asheville for the annual meeting of the State Medical Society took advantage of the opportunity and under the able committee leadership of Dr. Leon Feldman, class of 1934, assembled

AN APPEAL

Your Alumni Association is urgently in need of support for the Alumni Student Loan Fund.

The Committee on Scholarships and Loans reports that the number of applications for financial assistance being received from deserving students will probably deplete available funds. It is possible that some promising student will have to be denied.

It is needless to remind you that every little bit helps, and if this appeal strikes a responsive chord please send a contribution specifically marked "FOR ALUMNI STUDENT LOAN FUND."

MAKE CHECKS PAYABLE TO MEDICAL ALUMNI ASSOCIATION FUND

at the Battery Park Hotel on Monday evening, May 5, 1958, for a merry social hour which was followed by an enjoyable dinner.

The prevailing opinion heard expressed around the dinner table suggested that Dr. Feldman had arranged the slaughter of North Carolina's finest Angus steer and had by far the greater portion of the choice cuts therefrom roasted and served in enviable Old North State style.

The group was pleasantly and amusingly entertained when Dr. John R. Lowery, class of 1904, responded with a reminiscing report dealing with experiences in the practice of medicine, especially in the early days of his career. It is doubtful if ever a greater treat has been offered by way of narrative. He had them in stitches!

The Medical Alumni Association was officially represented by Dr. William H. Triplett, Executive Director, who reports that before adjournment of the meeting a show of hands indicated a unanimous urge for a similar reunion during the 1959 annual meeting of the State Society. Dr. Patricia Dodd was elected to the Chairmanship of a Committee to arrange a program and was given assurance of full support in an effort to bring out a larger group next year.



Maryland Alumni dine on occasion of North Carolina State Medical Association.



Dr. and Mrs. Triplett greet North Carolina alumni (l to r): Mrs. William H. Triplett, Dr. William H. Triplett, Executive Director of the Medical Alumni Association, Mrs. Leon Feldman, Dr. Leon Feldman.

Among those attending the dinner were Dr. and Mrs. William A. Lampley, Dr. and Mrs. Thomas N. Corpening.

Seen at the reunion (l to r): Dr. John R. Lowery, Mrs. Andrew Taylor, Dr. Kenneth L. Cloninger, Dr. Andrew Taylor.

More alumni (l to r): Dr. Louten R. Hedgpeth, Mrs. Louten R. Hedgpeth, Dr. John Hamrick, Mrs. William Hollyday, Dr. William Hollyday.

NEW JERSEY ALUMNI MEET

Under the able leadership of Dr. Joseph Nataro, class of 1925, a number of New Jersey practitioners, all alumni of the School of Medicine, met on Tuesday, May 20, 1958, at the Haddon Hall Hotel in Atlantic City, New Jersey.

The reception and cocktail party was also attended by a group from the School of Medicine which included Dr. Harry M. Robinson, Jr., President of the Medical Alumni Association, Dr. J. Morris Reese, Dr. William H. Triplett, Executive Director of the Medical Alumni Association, Dr. Frederick Holden and Dr. John A. Wagner, Medical Editor of the *BULLETIN OF THE SCHOOL OF MEDICINE*.

The following alumni and their wives attended:

Dr. and Mrs. Joseph Nataro	Dr. and Mrs. Louis Noll
Dr. and Mrs. Anthony Crecca	Dr. Jacob Schmukler
Dr. and Mrs. Charles Miinefor	Dr. A. A. Scullion
Dr. and Mrs. Carl Rothschild	Dr. Alfred Stahl
Dr. G. Kenneth Hawkins	

MANY ALUMNI AT 1958 A.M.A. CONVENTION

Despite a transcontinental journey, many alumni of the School of Medicine attended the 1958 session of the American Medical Association held in San Francisco, June 23-28.

Active in the organization session were **Dr. E. Irving Baumgartner**, class of 1931 and **Dr. D. Frank Kaltreider**, class of 1937. Dr. Baumgartner served as secretary of the Section on General Practice. Dr. Kaltreider served as discussant on several papers concerning obstetric problems.

Seen at the Convention—**Dr. Milton Katz**, class of 1938. Dr. Katz, an active pediatrician in Long Beach, has recently been named Chief of Pediatrics at the St. Mary's Hospital, Long Beach. Dr. Katz is also active in civic affairs. **Dr. Maurice Siegel**, class of 1939, practices internal medicine in Los Angeles. **Dr. Leonard C. Molofsky**, class of 1938, is currently associated with the Permanente Group in Los Angeles. **Dr. Edwin O. Hendrickson, III**, class of 1946, is active in orthopedic surgery in the Los Angeles area, with offices in the Medical and Dental Building, 4224 S. Sepulveda Boulevard near Los Angeles. **Dr. John Williams**, class of 1947, practices general surgery in Los Angeles while his brother **Jim**, of the same class, does general practice in Marysville, California. **Dr. Donald I. Mohler**, class of 1948, now located in Reno, Nevada, is loud in his praise of the far West. **Dr. Ursula T. Slager**, class of 1952, was in San Francisco for both the Convention and the American Board of Pathology. She currently serves as associate pathologist at the General Hospital, Los Alamos, New Mexico. **Dr. Harry Walsh**, class of 1952, is in practice in the Los Angeles area.

Seen also were Baltimoreans, **Drs. George Yeager**, class of 1929, serving as delegate from the Medical and Chirurgical Faculty of Maryland, **Dr. Melvin Borden**, class of 1938, and **Dr. E. Roderick Shipley**, class of 1942, of the Faculty of the School of Medicine.

Faculty members active at the meeting included **Drs. Russell S. Fisher**, Professor of Forensic Pathology, and **John A. Wagner**, Professor of Neuropathology, who both presented scientific exhibits.

DR. CANNON HEADS SUCCESSFUL A.M.A. ALUMNI REUNION***University of Maryland Faculty Representatives Speak over
Transcontinental Hook-up.***

Some 50 alumni of the School of Medicine and their guests gathered at the Sheraton-Palace Hotel in San Francisco on Wednesday, June 25, for cocktails followed by dinner.

This function was organized by Dr. Lawrence S. Cannon, class of 1940, and his most able and attractive wife, Dr. Betty (Bess) Cannon, class of 1939. It was sponsored by the Medical Alumni Association and was one of many similar parties now being held on the occasion of the larger medical society meetings.

A highlight of the affair was a transcontinental "broadcast" to the meeting by members of the Medical School Faculty. Dr. Harry M. Robinson, Jr., President of the Medical Alumni Association, introduced Drs. M. C. Pincoffs, C. R. Edwards, Nelson Carey and J. Morris Reese, whose remarks were enthusiastically received.

Those attending the reunion included:

Dr. and Mrs. F. A. Holden	Dr. and Mrs. E. Ellsworth Cook
Dr. and Mrs. Delmas D. Caples	Dr. and Mrs. Jerome Feldman
Dr. and Mrs. Lawrence S. Cannon	Dr. John A. Wagner
Dr. and Mrs. E. Roderick Shipley	Dr. Eva F. Dodge
Dr. and Mrs. Raymond C. V. Robinson	Dr. Simon Brager
Dr. and Mrs. Donald Mohler	Dr. Daniel Bogorad
Dr. and Mrs. Milton R. Righetti	Dr. Eugene I. Baumgartner
Dr. and Mrs. Herbert L. Eckert	Dr. Albert L. Upton
Dr. and Mrs. Preston Peterson	Dr. Rafael Longo
Dr. and Mrs. George E. Shannon	Dr. Frank Kaltreider
Dr. and Mrs. Clarence S. Miller	Dr. George E. Gifford, Jr.

HAVE YOU MAILED YOUR A.M.E.F. CONTRIBUTION?

The need for private support of medical education is a continuing one. Alumni of the School of Medicine are particularly solicited to contribute annually to the American Medical Education Foundation's fund for medical education. All contributions may be earmarked for the University of Maryland School of Medicine should you desire.

Mail contributions to American Medical Education Foundation, c/o American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

MARYLAND ALUMNUS RECEIVES IMPORTANT INDUSTRIAL MEDICAL APPOINTMENT



DR. ISADORE KAPLAN

Dr. Isadore Kaplan, class of 1937, has been named Medical and Surgical Director of the Baltimore and Ohio Railroad with system jurisdiction. Dr. Kaplan succeeds Dr. Samuel M. English who retired July 1, 1958.

Born in Baltimore in 1912, Dr. Kaplan received his degree of Doctor of Medicine from the University of Maryland in 1937, and practiced industrial medicine in Central City, Pennsylvania, for three years. From 1941 to 1945 he served on active duty with the 29th Division (Maryland National Guard) as an officer of the 104th Medical Battalion in the European Theater.

Following World War II he joined the Baltimore and Ohio Railroad's Medical and Surgical Department as assistant medical examiner and was appointed medical examiner in July, 1951.

The department he now heads has as its chief function the medical examination of applicants for employment and for health, accident and life insurance examinations under the Railroad's Relief Department; the examination, care or referral of employees injured on duty; and over-all responsibility for the health and hygiene of the railroad's employees.

Dr. Kaplan is an authority on preventive techniques in industrial medicine and is expected to carry out a plan for further centralization of the staff of the Railroad's medical examiners.

Dr. Kaplan is the author of an article entitled "Medico-Legal Problems of Industrial Medicine" which will shortly be published in the journal, *Industrial Medicine and Surgery*.

He is a member of the American Medical Association, Industrial Medical Association, Baltimore City Medical Society, Medical and Chirurgical Faculty of Maryland and the 29th Division Association, of which he is a past national surgeon.

CLASS NOTES**Class of 1894**

Dr. James Boyce Taylor of Huntington, West Virginia, died April 2, 1958, at the age of 89.

Class of 1896

Dr. Edgar M. Bush of Hampstead, Maryland, died April 3, 1958, of arteriosclerotic heart disease at the age of 87. Dr. Bush was the father of **Dr. Joseph E. Bush**, a member of the class of 1936.

Class of 1898

Dr. Phabiat M. Miller of New York City died on March 9, 1958 of bronchopneumonia and arteriosclerotic heart disease at the age of 85.

Class of 1901

Dr. Albert Scott Harden of 510 West Market Street, Newark, New Jersey, died on November 22, 1957.

A practitioner in Newark for more than 50 years, Dr. Harden died after a brief illness. He was 76.

A native of Wheeling, West Virginia, following his graduation from the School of Medicine, he took postgraduate training in Vienna and then returned to the New York Lying-In Hospital. In 1905 he became pathologist at St. Michael's Hospital and was the first pathologist in the city of Newark, New Jersey. He later became a visiting surgeon at St. Michael's and Presbyterian Hospitals and also was on the staff of the City Hospital now known as the Martland Medical Center.

Dr. Harden served in World War I and for many years was active as a surgeon for the Lackawanna Railroad. He was a member of the American College of Surgeons, the Essex County and New Jersey Medical Societies and the American Medical Association.

Dr. Eugene H. Hayward, well known Maryland surgeon for many years, died on August 6, 1958.

A native of Harford County and for many years a practicing surgeon, Dr. Hayward was active on the staff of St. Joseph's Hospital and was a member of the American College of Surgeons. A former president of the Baltimore City Medical Society, he was also a member of the Medical and Chirurgical Faculty of Maryland. He was active on the staffs of St. Joseph's, Bon Secours, Church Home and Mercy Hospitals. Dr. Hayward was a veteran of World War I, having served with the University of Maryland Medical Unit.

Class of 1903

Dr. Richard M. Nelson of Atlanta, Georgia, died on March 6, 1958, of cardiac failure at the age of 76.

Class of 1904

Dr. Howard Victor Dutrow, Dayton, Ohio, died on March 17, 1958.

Class of 1905

Dr. William E. VanLandingham is currently Director of Public Welfare of Palm Beach County, West Palm Beach, Florida.

Dr. Jacob Carter Fisk of New York City died on April 26, 1958, at the age of 84.

Class of 1906

Dr. Alfred Stahl recently attended the meeting of the New Jersey State Medical Society held in Atlantic City, New Jersey. Dr. Stahl also attended the Medical Alumni Association reunion held at the Chalfonte-Haddon Hall. One of the oldest living and active members of the Medical Alumni Association, Dr. Stahl is active in otolaryngology in New Jersey. He recounts with great authority the early days of bacteriology when the medical student's course consisted of the characteristics of but 4 bacteria, all that had at that time been properly identified.

Dr. Harvey A. Kelley of Winthrop, Massachusetts, died on April 8, 1958, of pulmonary edema, aged 75. Dr. Kelley was a veteran of World Wars I and II.

Class of 1907

Dr. Earl Lee Reger, of Spokane, Washington, died on April 3, 1958, of arteriosclerosis at the age of 82. Dr. Reger was a veteran of World War I.

Class of 1908

Dr. Allen Eugene Burner of Durbin, West Virginia, died July 23, 1958, at the age of 82. Dr. Burner maintained an active full time practice up to the time of his death.

Dr. William H. Walcott of Alexandria, Virginia, died on May 27, 1958, following an illness of several years.

Dr. William Cole Davis of Lexington, Virginia, died February 23, 1958, of cancer and pneumonia, aged 75. Dr. Cole was a veteran of World Wars I and II.

Class of 1909

Dr. Harry M. Robinson, Sr., Emeritus Professor of Dermatology in the School of Medicine and an '09er, writes the following:

To the Editor:

My son (Dr. Harry M. Robinson, Jr.) was just here and told me that you want a note regularly of the activities of the class of '09. I am happy to state that several of us are still in active practice, and I expect a few to risk the trip to Baltimore from as far South as Florida.

As you know, I still have a group I teach at the University of Maryland and I go to Johns Hopkins twice a week and also make the same number of visits to Maryland General as well as teaching the nurses nine hours a year. I am on call at Bon Secours Hospital and also teach nurses there.

I understand that all the men in Baltimore expect to attend the 50-year reunion of the class of 1909. From Florida, A. C. Walkup writes that he expects to be present. Strosnider also says: "Yes, the Lord willing, I shall be present as I

have been for the last 10 reunions." Robertson writes from Virginia, and says that you (me), Strosnider and I (meaning him) would make a quorum. Benson, of Port Deposit, says he will be here. Smeltzer writes that he doesn't feel he will be equal to the trip but reminds me of my pugilistic activities in my junior and senior years.

If I hear from any of the others I'll let you know. In any case we will have some representation from the class of '09. I wish we had Fred Rankin but of course — —

Yours,

HARRY M. ROBINSON, SR., M.D.

Class of 1914

Dr. Lawrence D. Cremin, of Riviera Beach, Florida, died on April 1, 1958, at the age of 71, of carcinoma of the colon with metastases. Dr. Cremin served during World War I.

Class of 1915

Dr. Louis Ward Grossman, of New Castle, Pennsylvania, died on April 18, 1958, of lymphosarcoma at the age of 71. Dr. Grossman served in World War I.

Class of 1916

Dr. William Henry Sloan of Garland, North Carolina, died April 9, 1958, of heart disease at the age of 67. Dr. Sloan served during World War I.

Class of 1920

Medical Arts Building
Baltimore 1, Maryland
June 22, 1958

Dear Classmates:

This letter is written in San Francisco where Jean and I are attending the A.M.A. Convention. I really hope to meet some of you out here. I thought this would be a good time to drop you all a note as it has been quite a while since the last, and the "grim reaper" has been at work since then.

In two more years we will have our **fortieth** anniversary—it's hard to believe it's been that long. We hope every one of you will make a special effort to be present. More details later.

Last November I tried to get some of you boys to the Southern Medical Association Convention—was able to get only a few but we enjoyed them. We had **Jackvony** and his wife. He has a sports car and drove down in it to Miami Beach. He had a daughter there and they went to Havana—well, they had fun and **Jack** looks as young as when he was in school—is a busy surgeon in Providence, R. I. **Bill Leuders** was there—he has a daughter in upstate Florida. **Navy Banvard** who was working for the B & O came down by train. **Paul Knotts** came alone as his good wife was not well. He and **Navy** really had a fine time together. Old reliable **Phil Artigiani** was also present. We always find him around and he's such good company. We all got together a lot and enjoyed our

stay. **Lou Dobihal** was to come but he got mixed up with the Asian Flu the day before and was too sick, and was he sore about it. **Morris Reese** was to have been there but several days before he had a serious auto accident and was all shook up but got O.K. in a couple of weeks—he is fine now. Several of the boys were to have been there but last minute problems prevented. One **John Erwin** had looked forward to coming for a year—a few days before I left for Miami Beach he called and said he felt bad. In a few days he had another heart attack. He got over that but in January had a fatal one—so there went another one. Then in May we were saddened again—**Lynn Brumbach** was making rounds at the hospital and he had a fatal coronary attack. I saw **Lynn** last October and tried to talk him into coming to Miami Beach but he had his hunting and fishing to do—well, he has plenty of time now, God bless his soul—he was 63, which is too young. His boy had been in his office with him a year and he now could have gotten away easier. This spring our own **Zev Hooper** had a bad time. He has had ulcers for years but nursed them along but one of them burst one day and he had to have quick surgery—well he did O.K. then got some chest complications. He was as sick as any one I have ever seen, but he rebounded and now is doing O.K. and will be better than ever. I see at intervals **Fred Smith**—**Nathan Davidov**—**Zinberg**, he's still single, **Henry Sheppard**—**Dan Pessagno**—**Sam Kourey**—**Leon Ginsburg**—**Howard Bubert** who had a rough time but is fine now. **Beanie Billingslea** and the other boys I wrote about. Had a nice letter from **Ben Gold**. He's doing O.K. thanks to atomic medicine. Note from **Orr**—he says he is fine and a country gentleman—**George Medairy** is the head of Rosewood, outside of town and he's fat and sassy.

I wish each and every one of you would sit down and write me a letter about yourself and your families. I'd get out a real long letter next time.

Our Alumni Association has been rejuvenated and the BULLETIN from now on will be full of news. So if you don't belong send six dollars to the Medical Alumni Association, Lombard and Greene Streets, Baltimore 1, Maryland. They need your help and you need them now more than ever—*so please do so now*. Quite a few of you boys have sons in medicine. It would be nice to know how many. Heard indirectly about **Clarken**. I was at the New Jersey Medical Meeting at Atlantic City with **Reese** at an alumni deal. They say he was there and fine but didn't show up at the deal.

Well so long for now—please drop me a note and show me you are interested. Time is marching on and we only have a few years left. Best to all your wives.

Sincerely,

AL HOLDEN (Dr. F. A. Holden)



Dr. Israel Zinberg was recently honored at the annual meeting of the Medical Division of the Associated Jewish Charities. Dr. Zinberg, one of the organizers of the Medical Division, was one of its first chairman. Other alumni are also active in this endeavor and are shown on the photograph taken on the occasion of the honor bestowed upon Dr. Zinberg. The photograph includes—l to r—**Dr. Louis J. Kolodner**, Chairman of the Campaign and a member of the class of 1936, Dr. Israel S. Zinberg, Mr. Elkan R. Myers, and **Dr. Milton Siscovick**, class of 1935, also a division chairman, Associated Jewish Charities Combined Campaign.

Class of 1921

The following letter has been received from **Col. Stanley W. Matthews**, Samuel G. Dixon State Hospital, South Mountain, Pennsylvania.

Dear Colonel Triplett:

I was most happy to receive your letter. It brought back to me the many pleasant associations I had while a member of the 104th Medical Regiment.

After over 30 years of military service I retired from active duty in the Army in January, 1955. Following my retirement, I went with the Pennsylvania Department of Health. I was in Harrisburg for 6 months and then came up here on the medical staff of the Sanatorium. I anticipate leaving here either in October or November as I expect to be appointed Medical Director of the new Pennsylvania Rehabilitation Center at Johnstown which will open in January, 1959.

The following is the information about Doctor Charles C. Custer which you requested.

He was born January 2, 1886. Following his graduation from the University of Maryland School of Medicine in 1909 he served for 3 years at Cresson State Sanatorium. He was appointed Chief of the Medical Service at Mont Alto Sana-



Class of 1928.

torium (Washington) May 13, 1923, and became Medical Director June 11, 1935, retiring September 30, 1946.

Following his retirement there he became Medical Director and Superintendent of the Bowling Green-Warren County Tuberculosis Association, Bowling Green, Kentucky, where he served from October, 1946, to February, 1948.

He then served in the Chest Clinic of the Westinghouse Electric Manufacturing Company, Pittsburgh, Pennsylvania, until July, 1951, when he was appointed Chief of the Chest Section, Veterans Administration, Regional Office, Pittsburgh, Pennsylvania. He retired in January, 1957, and died in September, 1957.

I hope I will have the opportunity of seeing you again in the near future. With kind personal regards, I am

Sincerely,

STANLEY W. MATTHEWS

Class of 1925

Dr. Edgar R. Miller is currently serving at the United Mission to Nepal at Kathmandu, Nepal.

Class of 1926

Dr. Arthur A. Scullion, who formerly practiced surgery in New Jersey, has retired from the practice of medicine and is currently active in the banking business.

Class of 1927

Dr. Charles E. Gill, who formerly served as staff physician at the South Carolina Sanatorium, is currently serving as Tuberculosis Control Officer of the Pinellas County Health Department, Saint Petersburg, Florida. Dr. Gill also served for a time as district health officer with the Massachusetts State Department of Public Health. Dr. Gill's current address is Box 3242, St. Petersburg, Florida.

Class of 1928

Class of 1928 Celebrates 30th Reunion in Grand Style

The class of 1928 gathered in force for the celebration of its 30th reunion. Aside from the activities centering around Alumni Day on June 5, a scientific session and banquet were planned for June 6. On June 7 members of the class were the guests of Dr. Jack J. Singer at his home.

Members of the class participating in the activities included the following:

Hugh A. Bailey	Nathan H. Kotch	John Mace, Jr.
William A. Berger	Jacob Lamstein	Vincent M. Maddi
Simon Brager	Joseph C. Laukaitis	Aaron Meister
George A. Duncan	Morris Lerner	Frank A. Merlino
Bernard Friedman	Maurice Levinsky	Ralph Mostwill
Aaron I. Grollman	Earl F. Limbach	Roy H. McDowell
Lewis P. Gundry	Luther E. Little	Peter Pileggi
Samuel J. Hankin	Isadore B. Lyon	Benjamin S. Rich
H. Alvan Jones	Robert S. McCeney	Hyman S. Rubenstein

Morris H. Saffron	Merrill C. Smoot	Fred S. Weintraub
Robert Sardo	Theodore Stacy	Aaron Weiss
A. A. Silver	S. Zachary Vogel	Albert Wilkerson
Jack J. Singer	C. Gardner Warner	Oscar D. Yarborough
	Frederick T. Zimmerman	

The BULLETIN is happy to publish herewith a photograph of the members of the class and their ladies taken at the Lord Baltimore Hotel on the occasion of the annual banquet.

Class of 1929

Dr. Thomas F. Vestal has been named superintendent of the Victor Cullen State Hospital, Cullen, Maryland.

Dr. Jacob H. Conn recently addressed the New York Society for Clinical and Experimental Hypnosis. Dr. Conn was appointed a member of the Board of Directors of the Institute for Research in Hypnosis. He is currently serving as president of the Baltimore-Washington Society for Clinical and Experimental Hypnosis. Dr. Conn recently delivered the commencement address at the Grier School in Tyrone, Pennsylvania.

Class of 1931

Dr. D. George Mankovich, of Punxsutawney, Pennsylvania, died April 22, 1958, of diabetes acidosis at the age of 51.

Class of 1935

The following is a letter to the class from **Harry M. Robinson, Jr.**, a member of the class and President of the Medical Alumni Association.

Dear Classmates:

In order to keep up the tradition of having the biggest and best class reunions of any class that ever graduated from the University Medical School, the Baltimore Committee of the class of 1935 is already preparing the program for the 25th reunion in 1960. Ernest Cornbrooks, Edward Cotter, Joseph Gross, Karl Mech and Harry Robinson, Jr., will collaborate in the arrangements. Joseph Gross is filling the place made vacant by the unfortunate death last year of Aaron Harris. Harry Robinson is president of the Medical Alumni Association this year and Ernest Cornbrooks will be the next president. Howard Mays is serving on the Board of Directors. Irvin (Curly) Freeman is Director of the Medical Service at the Fort Howard Veteran's Hospital and Francis Dickey is Medical Director of the V.A. Hospital in Atlanta, Georgia. George Schmitt is a big diabetes specialist in Miami and is wearing mink neckties. Bill Dunnigan is out of the service and back at work in industrial medicine. John Albright finally got married and spent his honeymoon at the Society of Investigative Dermatology meeting in New York last year. Jack Shaul is Medical Director of a drug house. Rip Williamson has joined the Editorial Board of the BULLETIN. Karl Mech is still serving with the Department of Anatomy and is one of the most popular teachers on the staff. Ed Cotter is Chief of the Medical Service at the

Maryland General Hospital. George Brouillet is busy with his surgical practice and is also on the staff of the Western Electric Company Medical Department. John Warren's daughter is a graduate nurse and a very pretty redhead. Robby's daughter is a pre-medical student at Vassar. There will be more news of our class in the next issue.

Send any items you come across to Harry M. Robinson, Jr., University of Maryland School of Medicine, Lombard and Greene Streets, Baltimore 1 Maryland.

Class of 1937

Dr. I. Phillips Frohman, of 2924 Nichols Avenue, S.E., Washington 20, D. C., currently active in general practice, has been named Editorial Consultant to *Current Medical Digest*.

Dr. Eugene S. Bereston, Assistant Professor of Dermatology, recently participated in a panel on dermatology held in conjunction with the Alumni Day of Sibley Hospital in Washington, D. C.

Class of 1938

Dr. John Z. Bowers has recently been named a member of the Council of Medical Education and Hospitals of the American Medical Association.

Dr. Robert Schlesinger is currently Chief of the Physical Medicine Division of the United States Veterans Hospital in Philadelphia. Dr. Schlesinger holds the distinction of being one of the few physicians in the United States to be certified in psychiatrics. With his attractive wife, Dr. Schlesinger was a recent visitor to the campus on the occasion of Alumni Day, June 5.

Dear Classmates:

I had every intention of attending our 20-year reunion after your and the Woodwards' kind invitation, particularly since I see Ted fairly often at various meetings of the Armed Forces Epidemiological Board. However, a special meeting of one of our research groups has been called in New York City at the same time as our class reunion.

Therefore, unfortunately, I regret to inform you all that I cannot attend our 20-year reunion on June 5, 1958. But I do thank you and the Woodwards very much indeed for your kind invitations. I hope most of our class can make the reunion and that you all have a grand time. Also, since I'll be in this area for the next 4 years or so, I hope I'll have another opportunity to get together with you all.

Until then and with best regards,

Sincerely yours,

JOHNNY RIZZOLO*

* Dr. John Rizzolo, class of 1938, is a member of the Armed Forces Epidemiological Board, Office of the Surgeon General, Department of the Army, Washington 25, D. C.

Class of 1940

Captain William C. Livingood, MC, USN, is currently serving as chief of the otolaryngology service at the United States Naval Hospital, Philadelphia, Pennsylvania. Dr. Livingood is in charge of the National Naval Aural Rehabilitation Center at this hospital. Following his graduation from the School of Medicine, Dr. Livingood served his rotating internship at Mercy Hospital. Entering the United States Navy he became certified by the American Board of Otolaryngology in 1954, later becoming a Fellow of the American Academy of Ophthalmology and Otolaryngology. He is a Fellow of the American College of Surgeons and, in addition to his naval career, has served as assistant professor of otorhinology at the Hahnemann Medical School in Philadelphia. Captain Livingood is a past president of the Society of Military Otolaryngologists. His address is United States Naval Hospital, Philadelphia 45, Pennsylvania.

Dr. William D. McClung was recently elected President of the West Virginia Chapter of the American College of Surgeons. He has also been appointed by Governor Underwood of West Virginia to a 9-year term on the West Virginia State Board of Health. This is a 9-member Board which controls the Department of Health, Hill-Burton Funds, etc.

Class of 1941

Dr. Lorman Hoopes of 17-A South Main St., Minot, North Dakota, writes: "Why not create alumni interest by reproducing old photographs—that would interest all of us. For example Dr. A. M. Shipley teaching on the wards way back when, etc., etc. Also old pictures of alumni less prominent." (**Editor's note:** The Editor would appreciate receiving photographs on loan from any alumnus who may have interesting pictures of school activities occurring in the past. It would be a pleasure to publish these with appropriate captions and legends submitted by the alumnus.)

Class of 1942

The class of 1942 was the last complete four-year group prior to the war-time accelerated program. Since graduation we have experienced one global war, one local conflict, and now general military unrest. Following return from military duty, our class has located all over the United States.

Soon in 1962 we will have a twenty-year reunion. In the next fifteen issues of the BULLETIN we will try to locate and tell something about each member of the Class of 1942. When the twenty-year reunion rolls around, we will then be able to unite again.

Our group is quite fortunate, since most of us are alive, healthy, and with good practices. One member, **Dick File**, died during the past year in Decatur, Illinois.

Members of the class with information of themselves or other classmates, please send it to the BULLETIN Office.

Class of 1943

Dr. John Sigler was one of the consultants serving in the "Do You Have a Question, Doctor?" booth at the arthritis section sponsored by the American Rheumatism Association in connection with the recent San Francisco meeting of the American Medical Association.

Dr. Harold Rellinger-Stafford is in practice at San Lorenzo, California.

Dr. Edwin H. Stewart, news secretary for the class of March, 1943, reports that the class celebrated its 15th reunion on June 4, 1958, with a shore party at the cottage of **Dr. Stephen Van Lill**. This was sponsored by the Baltimore Committee composed of **Drs. Van Lill, Brennan, Queen, Wich, Berry, Taylor, Webster** and **Stewart**. A cocktail party preceded the Alumni Banquet on the following day.

Six members of the class have died during the period since graduation.

Dr. Edward H. Stewart, Jr., reports that he has recently been appointed senior Fellow of the Southeastern Surgical Congress.

Dr. Preston H. Peterson of 1045 N. California Street, Stockton, California, has recently been certified by the American College of Gynecology and Obstetrics. Dr. Peterson is also a Fellow of the American College of Surgeons. He was recently appointed Chief of the Section of Obstetrics and Gynecology at the Dameron Hospital, Stockton, California.

Class of 1946

Dr. Clarence McWilliams, Jr., class of 1946, has recently been elected President of the Baltimore County Medical Association. Dr. McWilliams is engaged in general practice in Reisterstown, Maryland.

Lt. Col. E. P. Smith, Jr., USAF, has recently been certified by the American Board of Surgery and the American Board of Thoracic Surgery. Dr. Smith, who is currently stationed at the Scott Air Force Base Hospital, Illinois, is also a member of the Southern Thoracic Surgical Association and a Fellow of the American College of Surgeons. Dr. Smith is currently Chief of the Surgical Service and the Thoracic Surgery Service of the Scott AFB Hospital.

Class of 1948

Dr. Kyle Swisher representing the class of 1948 has collected the following information.

Dr. George V. Hamrick has recently opened his office for the practice of ophthalmology at 404 Medical Arts Building, Charleston, West Virginia.

Dr. Nicholas Mallis has recently become associated with **Dr. Howard B. Mays** in the practice of urology with offices at 3301 North Charles Street in Baltimore. Dr. Mallis was formerly assistant chief of neurology at the Walter Reed Army Hospital.

Members of the class of 1948 should send class information directly to **Dr. Swisher** at the School of Medicine or to the BULLETIN at the same address. The alumni coupon at the end of the journal is useful for this purpose.

Dr. Carl H. Kennedy, Jr., is engaged in the practice of obstetrics and gynecology with offices at 1503 Foulkrod Street in Philadelphia.

Dr. Merle Scherr is currently President of the West Virginia State Society of Allergy. Dr. Scherr founded the first free allergy clinic in the State of West Virginia and is Chief of the Allergy Clinic at the Charleston Memorial Hospital.

Dr. Edward A. Newell is engaged in the practice of otolaryngology with offices at 1511 N. Beckley, Dallas, Tex.

Dr. Donald I. Mohler is Chief of Obstetrics and Gynecology at the Washoe Medical Center in Reno, Nevada.

Dr. Lee Kasten is engaged in the practice of pediatrics in Portsmouth, Virginia.

Dr. Robert R. Stahl is currently Instructor in Medicine at Western Reserve University School of Medicine.

Class of 1949

Dr. Howard F. Raskin, at present a member of the faculty of the University of Illinois, presented a paper entitled "The Role of Exfoliative Cytology in the Diagnosis of Cancer of the Digestive Tract." Dr. Raskin, a former resident in Medicine at the University Hospital and now Assistant Professor of Medicine at the University of Chicago, is doing full time teaching in research in the Department of Gastroenterology.

Dr. John F. Strahan, news secretary of the class, reports the following: **Dr. Charles Roehrig** is engaged in private practice of internal medicine in Brookline, Massachusetts. **Dr. Richard Fravel** is actively engaged in the practice of internal medicine in Baltimore. **Dr. John Spittel** is on the staff of the Mayo Clinic in the Department of Internal Medicine. **Drs. John and Lil Ziegler** are both practicing medicine near Olney, Maryland. **Dr. Russell Tilley** is doing general practice in Washington, D. C. **Dr. Gene Trettin**, who has recently completed a residency in otolaryngology, is now engaged in this specialty in Baltimore.

Class of 1950

Dr. William B. Rever, Jr., class of 1950, has announced the removal of his office for the practice of general surgery to 1020 Saint Paul Street, Baltimore 2, Maryland.

Dr. G. Kenneth Hawkins is on the scientific staff of the Schering Corporation.

Class of 1951

Dr. Ricardo Mendez-Bryant who practices Internal Medicine at the University of Puerto Rico School of Medicine was a recent visitor at the annual meeting of the American Medical Association in San Francisco.

Dr. John W. Bossard, who has completed his training in neurologic surgery at the Mayo Foundation in Rochester, Minnesota, has entered the practice of neurologic surgery in Fort Wayne, Indiana.

Dr. William H. Edwards, Jr., has announced the opening of his office for the practice of psychiatry at 2 East Read Street, Baltimore 2, Maryland. Dr. Edwards was recently made a Diplomate of the American Board of Psychiatry.

Dr. John H. Stone has recently been awarded the degree of Master of Public Health by Harvard University.

Class of 1953

Dr. William H. Slasman, class of 1953, has announced his affiliation with Dr. Theodore A. Schwartz in the practice of otolaryngology with offices at 834 Park Avenue, Baltimore, Maryland.

Dr. Rafael Longo-Cordero, who has completed his residency in neurologic surgery at the University Hospital, has returned to his native Puerto Rico and will practice neurosurgery in San Juan. Dr. Longo will be associated with Dr. José Alvarez de Choudens, class of 1944. Before his return to Puerto Rico, Dr. Longo conducted a scientific exhibit at the American Medical Association meeting in San Francisco.

Dr. Harrison M. Langrall, Jr., is currently associated with the Davis Clinic in Marion, Indiana.

Class of 1954

Dr. Earl Cohen is currently serving a residency in psychiatry at the Mt. Zion Hospital in San Francisco.

Class of 1955

Dr. Philip G. Staggers is currently assigned to the United States Marine Corps Air Facility at Santa Ana, California. Dr. Staggers served his internship at the San Diego Naval Hospital. He plans to enter practice shortly at Keyser, West Virginia.

Class of 1956

Dr. Neil C. Henderson has completed the first year of a residency in pediatrics at the Albany (New York) Hospital and has been appointed resident in pediatrics at the Crawford W. Long Memorial Hospital, Emory University, Georgia, effective July 1, 1958.

MAKE USE OF TEAR SHEET AT END OF JOURNAL

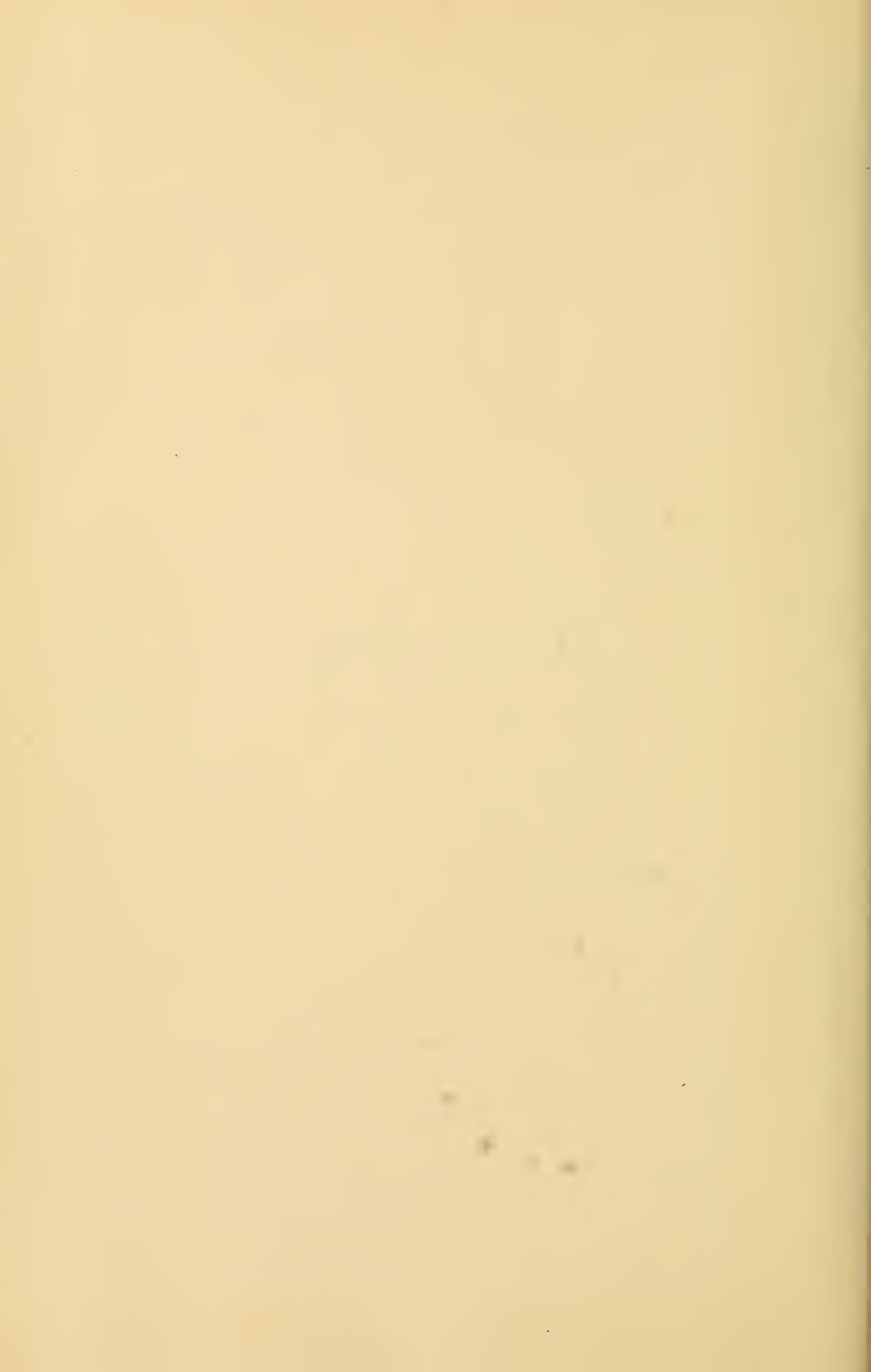
At the end of the journal there is a customary Alumni News Report which the BULLETIN solicits from each reader, in order that the School and Alumni Association (which also includes all of a doctor's classmates) can maintain contact with him through the many years of his active practice.

So, Alumnus—don't forget, tear out the sheet today, fill it in and mail it back to the BULLETIN.

ITEM

Dr. Zekin Andrew Shakhashiri of the American University of Beirut, Lebanon, was a recent visitor to the campus of the School of Medicine. Dr. Shakhashiri's father received his degree of Doctor of Medicine from the University of Maryland in 1909.





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